CFB WEST Master Plan

Supporting Information

Collaboratively Prepared by:

THE CITY OF CALGARY

Alberta
GOVERNMENT OF ALBERTA

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How to Use This Supporting Information Document

This document provides a summary of the information and analysis that contributed to the preparation of the draft CFB West Master Plan. The Supporting Information document does not form part of the adopted Plan..

1.0	**Introduction**	Summarizes the plan preparation process and its components.
2.0	**The Study Area**	Provides information about the existing development and components of the planning area.
3.0	**Surrounding Communities**	Describes the adjacent communities, summarizing demographic, housing, land use, and community information.
4.0	**Policy Context**	Summarizes the City of Calgary policy documents relevant to the CFB West planning process.
5.0	**Urban Design Principles**.....	Introduces urban design concepts and their application to the CFB West planning area.
6.0	**Traffic Modeling**.....	Summarizes the analysis of traffic impacts on adjacent communities.
7.0	**Public Involvement**	Describes the Citizen's Advisory Roundtable, and the public events and other means used to collect public input into the planning process.
8.0	**Market Analysis**	Summarizes the analysis of marketplace factors affecting the plan preparation process.
9.0	**Affordable Housing**	Summarizes information about affordable housing issues and the provision of social housing in the planning area and in adjacent communities.
10.0	**Definitions**.....	Provides definitions of planning terms used in the document and in the CFB West Master Plan.

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How To Use This Document

Appendix 1 ..... Provides information on the procedures for development and building permit approvals for historic sites.

Appendix 2 ..... Contains the report of the Citizen's Advisory Roundtable's examination of affordable housing and their recommendations for the CFB West Master Plan.

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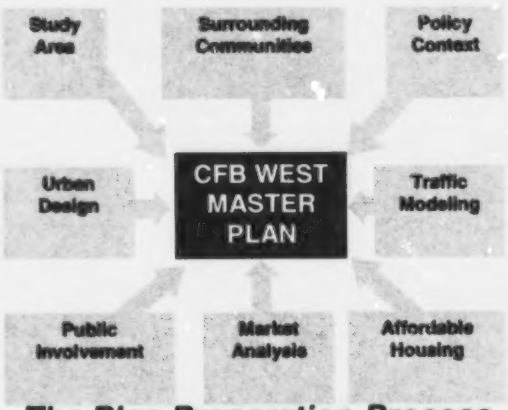
Purpose of the Supporting Information Document

The purpose of this document is to summarize the process for preparing the CFB West Master Plan. The document:

- outlines the features and conditions of the study area;
- describes the characteristics of the surrounding communities;
- summarizes the policy context for the plan preparation process;
- tells how members of the public contributed to the Master Plan; and
- explains other types of information, such as computer traffic models, affordable housing issues, and market analyses, that have been incorporated into the Master Plan.

This document has no official or regulatory status.



The Plan Preparation Process

1.0 Introduction

The federal government's decision to close CFB Calgary presented several opportunities and challenges. A large parcel of land on the edge of Calgary's inner city would suddenly come under the City of Calgary's planning jurisdiction, and would become available for development. A substantial number of military personnel and their families would leave Calgary. A number of jobs for local civilians would also disappear.

Initially, the Calgary City Council approved an interim land use strategy that would keep buildings and homes occupied during the transition, helping to replace the lost population and employment, and thereby assisting local businesses and neighbourhoods.

The City also approved planning processes for the long-term future of the former base lands. The process focused first on the largely residential area east of Crowchild Trail, resulting in a community plan that will reuse the military housing, add new single-family and multi-family housing, create new parks, and provide some commercial opportunities.

Following approval of the community plan for CFB East, the planning process concentrated on the lands west of Crowchild Trail. The unique circumstances of the project called for a unique approach to the process: it had to be collaborative among the three levels of government; it had to involve the public; and it had to incorporate local and citywide interests. The information in this document outlines the principles, strategy, background information and components of the plan preparation process.

1.1 Plan Preparation Principles

Following consultation with the City Administration, the Federal Treasury Board, Public Works Canada, Canada Lands Company, and the Province of Alberta, Council approved six operating principles for the planning process.

The first of these was a commitment to good public planning.

Second, the future use of the lands must be in the context of the Council approved strategic policies such as the Calgary Transportation Plan and Sustainable Suburbs Study, and have regard to adjacent community and downstream concerns.

Third, Council determined that the planning process for the CFB Calgary lands west of Crowchild Trail should include the immediately adjacent lands, in order to produce a comprehensive, long-term plan for the entire area. In addition to former CFB Calgary lands, the study area therefore includes.

- Richmond Green Park and Golf Course;
- Mount Royal College and its student housing area;
- the residential development in the Lincoln Park Redevelopment Area;
- the existing schools and Francophone community centre along Richard Road;
- land owned by the City of Calgary north of 50 Avenue;
- privately-owned land on the north side of Glenmore Trail; and
- the ATCO industrial area, owned by the City of Calgary.

Fourth, Council established that the planning process should consider redevelopment and reuse alternatives that may fulfil regional or national objectives.

Fifth, Council recognized the need for a planning process that provided for timely, clear, and responsive decision making from all levels of government, to ensure that the process could proceed expeditiously to avoid the adverse impact of a vacant site.

The final principle approved by Council was that the planning process must address the needs and wishes of the major landowners responsible for the implementation of the plan.

1.2 Strategy for the Plan Preparation Process

With these principles in mind, Council approved a strategy for the preparation of the Master Plan for the study area west of Crowchild Trail. The study area includes land owned or controlled by each of the three levels of government, as well as privately-owned land. To help to achieve co-ordination among these three levels of government, Council members recommended the creation of an Inter-governmental Liaison Committee (ILC), to include one representative from each of the municipal, provincial and federal governments. The purpose of this committee was to represent the interests of each government in the process and to ensure co-ordination among them.

Although City Council is the final approval authority for the Master Plan, the process needed to be collaborative among the different levels of government. Therefore, Council directed the formation of a Plan Preparation Team to include representatives of the Civic Administration, Canada Lands Company, and the Province of Alberta. The Plan Preparation Team was responsible for preparing and evaluating all technical work associated with the plan, including consultation with the major users on the site, and developing initiatives to ensure broad public input.

The City of Calgary was represented on the Plan Preparation Team by staff of both the Planning Policy Business Unit and the Corporate Properties Group, which manages all City-owned property. In addition, staff worked alongside staff from other business units in the Land Use and Mobility portfolio and from other portfolios including Utilities and Environmental Protection, and Community Vitality and Protection.

Council also called for the creation of a Citizens' Advisory Roundtable (CAR), with local, citywide, and federal representation. The CAR would also have a chairperson selected by the ILC, and a public involvement consultant. The section on Public Involvement contains more information about the CAR.

1.3 Components of the Plan Preparation Process

1.3.1 The Study Area

The military base closure affected two large sites west of Crowchild Trail: the Currie Barracks area north of Richardson Way SW, and the Lincoln Park military housing south of the ATCO site and north of Glenmore Trail. As discussed above, Council directed that the study area include the lands adjacent to these sites. The uses on these neighbouring lands need to relate to their immediate

surroundings, and the existing neighbourhoods will need connections to each other. Furthermore, many of the uses on the adjacent lands, like Mount Royal College, residential areas, and so on, were developed at a time when the base was operating. The base closure and redevelopment will likely affect their operations, and offer them some new opportunities. Therefore, the study area was defined to include all the lands south of 33 Avenue SW, west of Crowchild Trail SW, north of Glenmore Trail SW, and east of 37 Street SW and Sarcee Road SW. (See Figure 1.)

1.3.2 The Surrounding Area

The study area boundaries describe the area where the planning process has the mandate to make decisions about future development and redevelopment. However, this site cannot be studied in isolation. The new neighbourhoods that will be developed here in the future must relate to the surrounding communities, and must also fit into Calgary as a whole.

1.3.3 The Policy Context

Just as planning for an area like this does not happen in physical isolation from its surroundings, it does not happen without connections to existing policy. It is guided and shaped by senior planning documents, like the Calgary Plan and the Calgary Transportation Plan. These documents help to organize the approach to the study area. In fact, a long tradition of planning for the type of city Calgarians want helps to establish a starting point for the CFB West planning process.

> *"City planning is not the attempt to pull down your city and rebuild it at ruinous expense. It is merely deciding what you would like to have done when you get the chance, so that when the chance does come, little by little you may make the city plan conform to your ideals."*

(Speech delivered in Calgary in 1912 by Thomas H. Mawson, Hon. A.R.I. B.A.)

The City of Calgary's senior planning documents describe what Calgarians would like to have done when they get the chance. These plans call for a more compact city that makes more efficient use of land and services; that is designed to encourage people to use alternatives to the car; that provides a range of housing choices to accommodate different lifestyles and income levels; that reverses the trend to population loss in the inner city and established suburbs; and that accommodates the city's growth in affordable ways.

All planning and land use decisions should contribute to this vision of Calgary. These day-to-day decisions represent the ways that, little by little, the city achieves the vision. The CFB West planning process is an opportunity to contribute to the vision on a larger scale, but it remains one component of an incremental process of achieving the long-term goals for the city.

1.3.4 Goals for the Master Plan

The Master Plan preparation process established a set of goals, derived from City policies and public input, so as to provide guidance and direction. The ten main goals are:

- Make efficient use of existing infrastructure and services.
- Reduce reliance on the automobile.
- Support sensitive intensification.

- Bring jobs and homes together.
- Create a unique, diverse, and integrated urban community.
- Promote environmental sustainability.
- Enhance and complement surrounding communities.
- Commemorate the history of the military in Calgary.
- Encourage innovation and creativity.
- Address landowners' interests.

Throughout the process, these goals have been used to provide direction to decision-making and to evaluate proposals.

1.3.5 Urban Design

Cities and areas within them contain physical elements like buildings, roads, open spaces and landscaping. The arrangement of these elements, and the way they work together, influence the character of the place, and even the behaviour of people in the place. Urban design involves arranging these physical elements in ways that create safe and vital places, which are adaptable to human activity. Within the framework of urban design principles, individual components form a coherent whole, and establish a community's form and image. The CFB West Master Plan used these principles as a foundation for a community with character and a sense of place.

1.3.6 Traffic Modeling

As is the case with any redevelopment project, traffic generated by the new uses is an issue. To prepare the Master Plan, computer traffic models were used to determine the amount of traffic, and to determine the optimum ways to manage it. The model results provide information used to help modify the land use proposals.

1.3.7 Public Involvement

Preparing a plan involves technical analysis and expertise. To be successful, it must also involve members of the public, who contribute their ideas and comments throughout the process. They help to identify issues, opportunities, and constraints. They also help to identify and solve potential problems. The Master Plan preparation process made a concerted effort to involve Calgarians at key stages, and to be as open and inclusive as possible. The Plan Preparation Team's challenge was then to balance local comments, citywide comments, and technical input to produce an effective plan.

1.3.8 Market Analysis

As major landowners in the study area, Canada Lands Company, the Province of Alberta/Mount Royal College, and the City of Calgary have an interest in developing their land in ways that will respond to market trends. While the Master Plan includes policies for the long term development of the study area, analysis of current market trends helps to ensure that these policies are practical and realistic, making their implementation more likely.

1.3.9 Affordable Housing

The city's increasing population has contributed to a situation of limited opportunities for low income people to find housing within their means. The City of Calgary, along with other agencies and levels of government, is seeking ways to address this issue. The Master Plan, within the context of this

continuing work, includes policies to address housing affordability. This document provides a summary of the background that contributed to policy formulation.

2.0 The Study Area

The study area for CFB West is not a blank slate, ready to be developed. It is a package of physical features, existing institutions, neighbourhoods, structures, roads and services, and features of historical importance. This section provides a description, inventory, and analysis of the study area's characteristics, opportunities and constraints.

2.1 Location

2.1.1 City Context

The CFB West Master Plan area is located in the southwest sector of the city of Calgary, as shown on Figure 1. It is located at the intersection of two major expressways: Crowchild Trail is the major north-south route on the west side of the city, and Glenmore Trail is the major east-west route on the south side of the city. The planning area is located within a radius of:

- 6.8 kilometres from downtown Calgary;
- 4.4 kilometres from a major shopping area to the west along Sarcee Trail;
- 5.1 kilometres from a major shopping mall to the east at Glenmore Trail and Macleod Trail;
- 3.5 kilometres from the Elbow River and its associated pathways and open space; and
- 4.1 kilometres from the Glenmore Reservoir and its parks, pathways and other amenities.

The westernmost part of the planning area touches on the boundary between the City of Calgary and the Tsuu T'ina Reserve. A portion of this reserve was leased from the Tsuu T'ina nation by the Department of National Defence. This area was known as Harvey Barracks. The military has vacated this area, and it is now within the jurisdiction of the Tsuu T'ina nation.

More information on nearby facilities and services is available in Section 3.0.

2.1.2 The Planning Area

The planning area includes the CFB Currie Barracks, the Lincoln Park PMQs (Permanent Married Quarters) and the adjacent lands. The planning boundaries, as illustrated on Figure 1 are as follows:

North:	33 Avenue SW
South:	Glenmore Trail SW
East:	Crowchild Trail SW
West:	37 Street SW and Sarcee Road SW

The planning area covers a total of approximately 313 hectares (774 acres), and is about 2.6 kilometres from north to south, and 1.6 kilometres from east to west.

The study area includes three community districts: CFB Currie, CFB Lincoln Park (the Permanent Married Quarters or PMQs), and the Lincoln Park Redevelopment Area. This last district was created when the RCAF Lincoln Park station closed in the 1960s, and includes the ATCO site, Mount Royal College and its student residences, and the residential development along Sarcee Road. These districts are defined for civic census purposes.

The study area also includes portions of the communities of Rutland Park (including Grace Lutheran Manor) and Richmond (the regional park and public golf course along 33 Avenue SW).

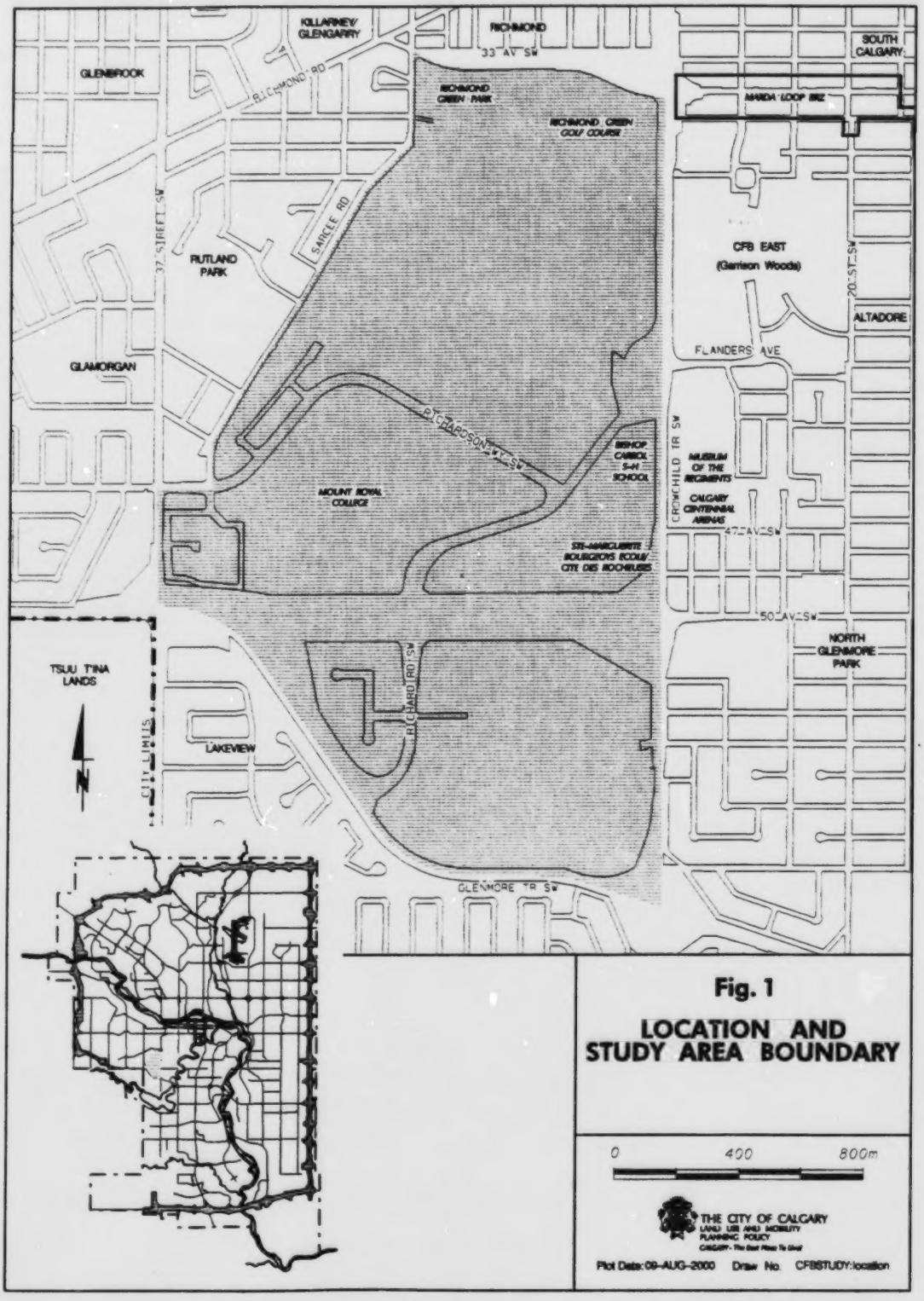


Fig. 1

LOCATION AND STUDY AREA BOUNDARY

2.2 Land Ownership

Land ownership in the planning area is complex. (See Figure 2.) The federal government owns land for Department of National Defence use, and its real estate development Crown corporation, Canada Lands Company, owns the remainder of the former military base. CLC acts as a private developer to manage these lands. Together, these holdings account for 36% of the planning area.

The provincial government, through Alberta Housing Corporation, owns several sites with existing residential development. The Calgary Regional Health Authority, a provincial agency, owns the CareWest Sarcee site. Mount Royal College, a provincially funded institution, owns its campus. These sites combined account for about 15% of the planning area.

The City of Calgary owns park space and administration facilities, storage yards, school sites, the site leased to ATCO, a residential site operated by Calhome Properties, undeveloped vacant land, and unused road rights-of-way. The City and school holdings make up 26% of the total.

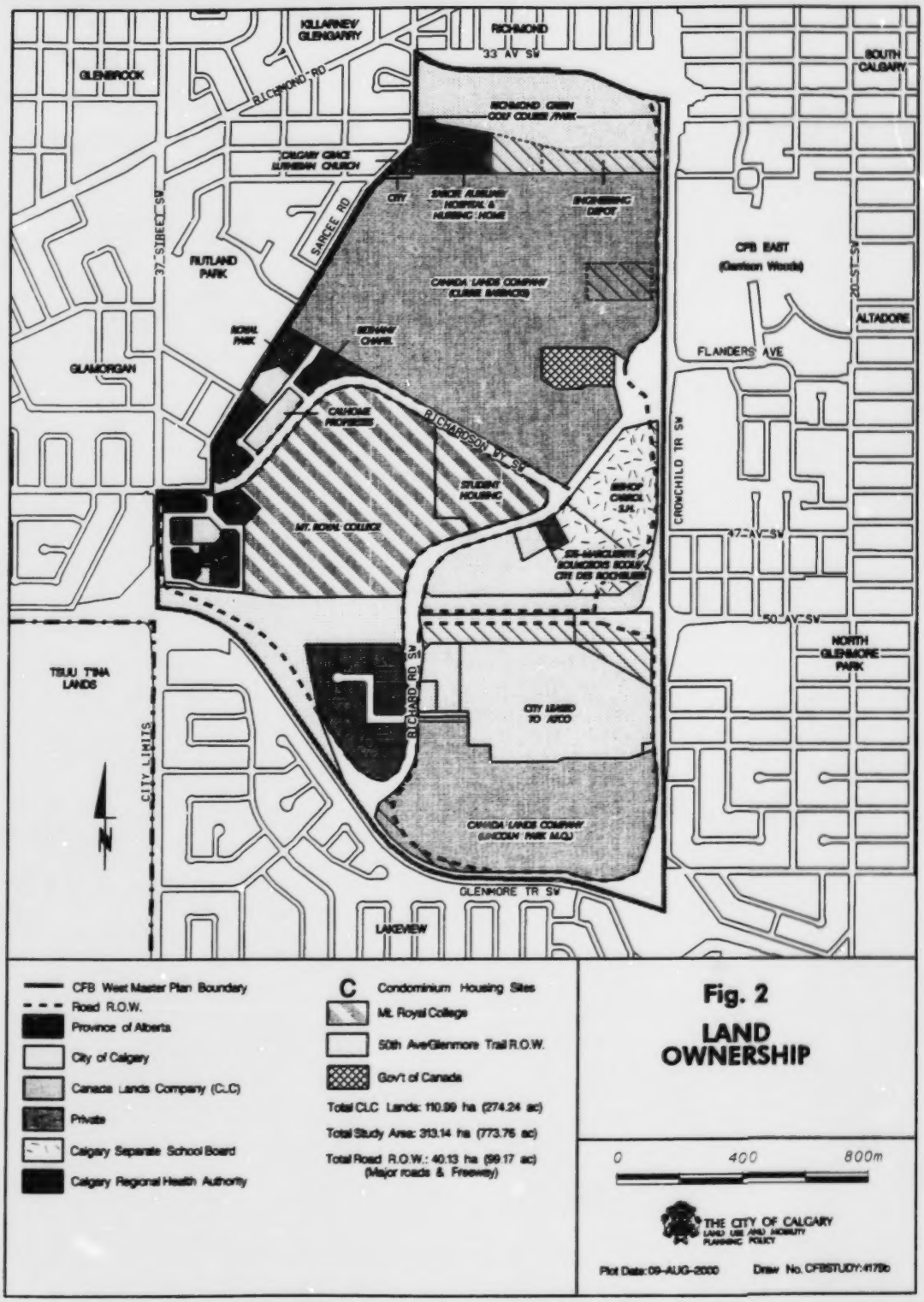
In addition, there are several privately-owned areas, including those with existing residential development, and a site west of the former military housing and south of Mount Royal College currently being developed. These sites occupy 6% of the planning area.

The remainder of the planning area consists of road rights-of-way.

Table 1 shows the ownership and area of the major parcels in the planning area.

Table 1

Parcel Sizes by Land Ownership		
Major Land Parcels	**acres**	**hectares**
Canada Lands Company		
Currie Barracks	194.26	78.62
Lincoln Park PMQs	79.98	32.37
City of Calgary		
Leased to ATCO	51.28	20.75
Richmond Green Park and Golf Course	41.94	16.97
50 Avenue Undeveloped Right-of-Way	39.44	15.96
"Media Village"	11.33	4.59
Offices and Yards	11.14	4.51
Fire Hall and Surrounding Land	6.89	2.79
Mount Royal College	104.51	42.30
Schools	32.56	13.18
Carewest Sarcee	7.26	2.94
Department of National Defence	7.15	2.89
Private Land: Lincoln Park Centre and Magusta Developments	23.85	9.65
Road Rights-of -Way: Major Roads and Freeways	99.17	40.13
Total Study Area	**773.76**	**313.14**


KILLARNEY/ GLENGARRY
RICHMOND
33 AV SW
SOUTH CALGARY
GLENBROOK
RICHMOND RD
RICHMOND GREEN GOLF COURSE / PARK
CALGARY GRACE LUTHERAN CHURCH
CITY
SARCEE RD
ENGINEERING DEPOT
37 STREET SW
RUTLAND PARK
CANADA LANDS COMPANY (CLARE BARRACKS)
CFB EAST (Canyon Woods)
20 ST SW
ROYAL PARK
BETHANY CHAPEL
ALTADORE
GLAMORGAN
FLANDERS AVE
CANADA PROPERTY
RICHARDSON DR SW
CROWCHILD TR SW
STUDENT HOUSING
BISHOP CARROL H.S.
MT. ROYAL COLLEGE
47 AV SW
50 AV SW
NORTH GLENMORE PARK
TSUU T'INA LANDS
CITY LEASED TO ARCO
RICHARD RD SW
CITY LIMITS
N
CANADA LANDS COMPANY (LINCOLN PARK M.Q.)
GLENMORE TR SW
LAKEVIEW
CFB West Master Plan Boundary
Road R.O.W.
Province of Alberta
City of Calgary
Canada Lands Company (CLC)
Private
Calgary Separate School Board
Calgary Regional Health Authority
C Condominium Housing Sites
Mt. Royal College
50th Ave/Glenmore Trail R.O.W.
Gov't of Canada
Total CLC Lands: 110.99 ha (274.24 ac)
Total Study Area: 313.14 ha (773.75 ac)
Total Road R.O.W.: 40.13 ha (99.17 ac)
(Major roads & Freeway)
Fig. 2
LAND OWNERSHIP
0
400
800m
THE CITY OF CALGARY
LAND USE AND MOBILITY PLANNING POLICY
Plot Date: 09-AUG-2000
Draw No. CFBSTUDY:#179b

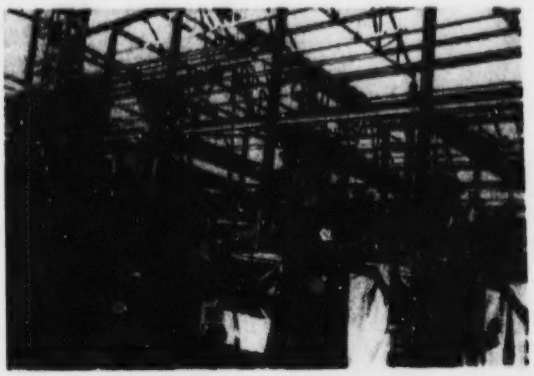
2.3 Topography and Natural Features

As shown in the topographic map (Figure 3), the Plan area slopes generally from northwest to southeast. The high point of the site is located along a ridge running generally north and south along the west side of the Currie Barracks area. A high point also exists on the southwest portion of the Mount Royal College site. The high points of ground provide some significant views, both west and southwest toward the mountains, and northeast toward downtown.

The Currie Barracks site contains a significant amount of mature vegetation, planted since the base began construction in the 1930s. All the vegetation is the result of introduced plants, grasses and trees over the course of the history of the base. Some of these trees are growing in naturalized settings, while other vegetation occurs in more formal plantings. These include the evergreen trees lining Trasimeno Crescent, the formal garden south of the Officers' Mess and formal plantings south of Mount Royal College.

Mature Trees on Currie Barracks Site

The mature trees, shrubbery and open spaces provide habitat for some birds and small mammals. These include ground squirrels, red-tailed hawks, gray partridge, white-tailed jackrabbits and gray squirrels. There is a weak link between the open spaces within the study area and the Tsuu T'ina lands and Glenmore Park, but the link does not create a viable wildlife corridor for land-based animals. Bird populations, however, likely include these nearby areas in their ranges.

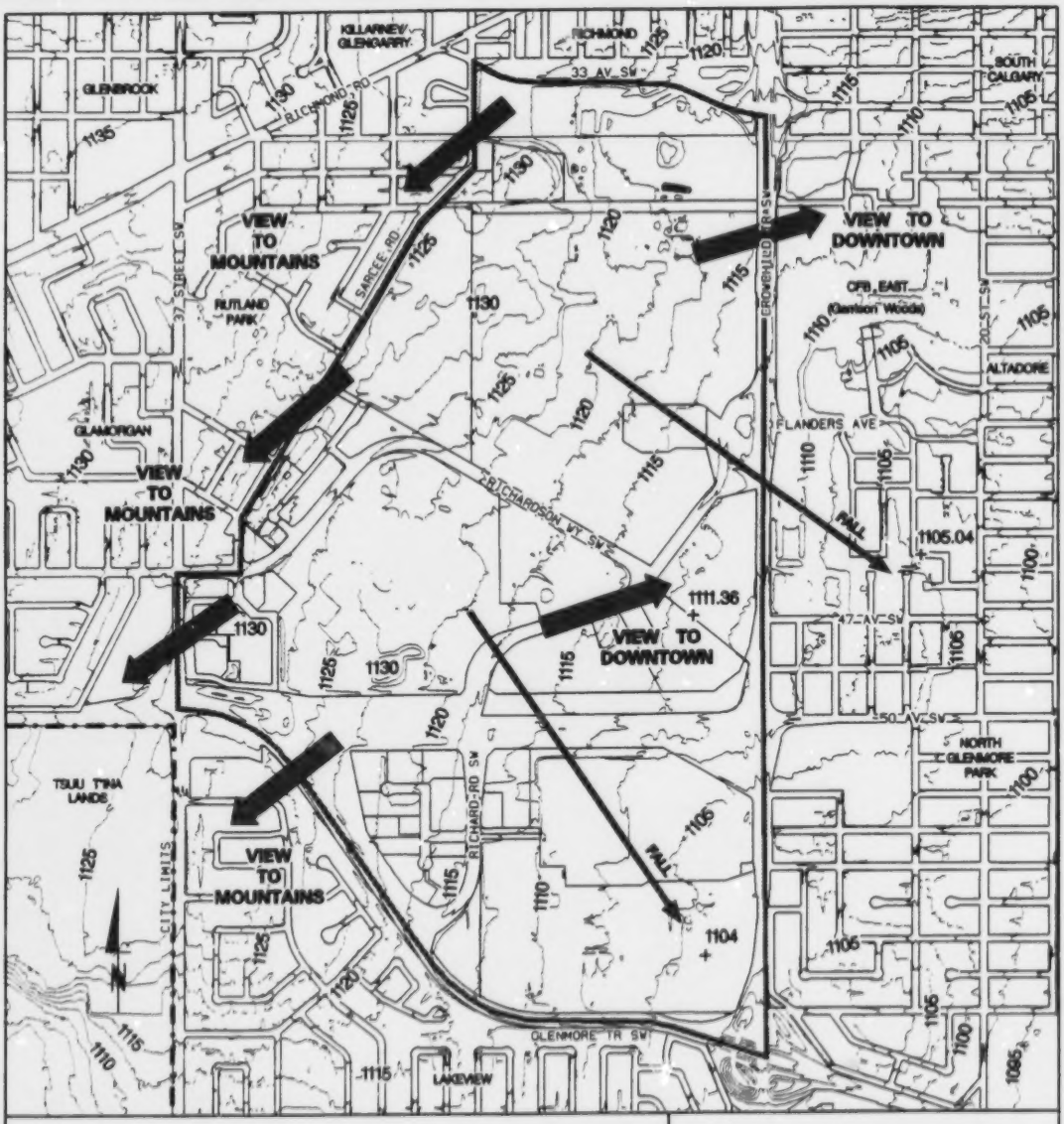


The Earl of Bessborough visits the base under construction

2.4 History

CFB Calgary lands were first used for military purposes during World War I. The construction of the Base itself began in 1934 as a depression relief project under the Public Works Act. It was intended to house permanent Force military units. Construction continued during the 1930s, with the development of RCAF Station Lincoln Park. During World War II, this was used as a training facility for the British Commonwealth Air Training Plan. Housing for married personnel (Permanent Married Quarters, or PMQs) was added following the war, both east and west of Crowchild Trail.

In 1964, Lincoln Park Air Station was closed, and ownership of its PMQs and north hangars was transferred to CFB Calgary. The airfield itself was



CFB West Master Plan Boundary

1104 Spot Heights

Fig. 3

TOPOGRAPHIC FEATURES

0 400 800m

THE CITY OF CALGARY
LAND USE AND MOBILITY PLANNING POLICY
CALGARY - The Best Place To Live

Plot Date: 09-AUG-2000 Draw No. CFBSTUDY:4122new

transferred to the Province and is now occupied by Mount Royal College. The south hangars were transferred to the City of Calgary and are now leased to ATCO. Other portions of this area have been developed with homes and institutions, such as schools and churches, and some privately owned land is as yet undeveloped. This area is called the Lincoln Park Redevelopment Area.

In 1995, the Federal government announced plans to close CFB Calgary by 1998. Only a small portion of the Base west of Crowchild Trail (approximately 8 acres) has been retained for military purposes. The remainder of the land has been sold to Canada Lands Company (CLC), which now has the responsibility to manage and develop it. Canada Lands Company is a federal Crown corporation that assumes ownership of surplus federal lands and manages their redevelopment and disposition.

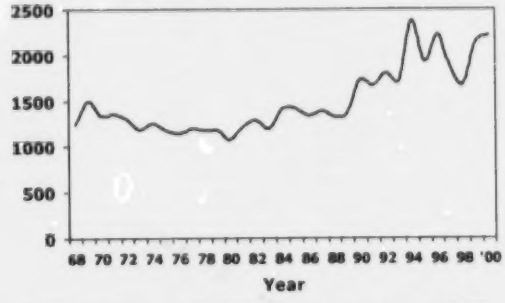
2.5 Population

2.5.1 Trends

The population history of the study area reflects the fluctuations caused by decline in household size, new development in Lincoln Park, and the varying population of CFB Calgary. The population of the entire study area remained relatively steady between 1968 and 1989, followed by increases in the 1990s. (See Figure 4.)

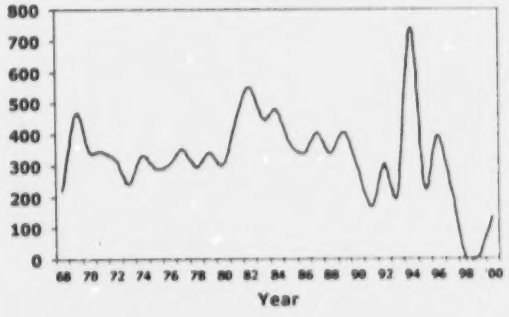
Figures 5 through 7 show the population history for each of the districts within the study area. The Currie Barracks population, comprising mainly young, single military personnel, fluctuated according to the activities of the military. The Lincoln Park PMQs, housing married military personnel and their families, showed gradual decreases between 1968 and 1996, followed by a sharp decrease with the base closure. The population figures after 1998 show a recovery of population in this area, reflecting the interim leasing of the existing houses. The Lincoln Park Redevelopment district was sparsely populated until 1983, when some of the housing on the west side of the study area began to be developed. Each subsequent new development further increased the population.

Figure 4
CFB West Study Area - Historical Population
1968 -2000



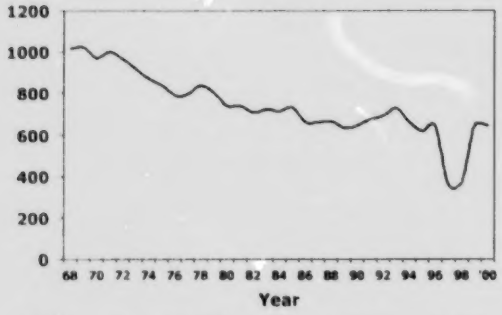
Source: City of Calgary Civic Census, 2000

Figure 5
Currie Barracks - Historical Population
1968 -2000



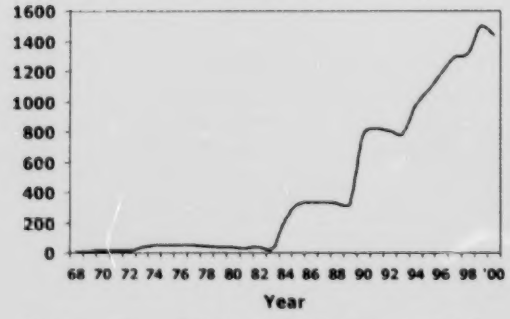
Source: City of Calgary Civic Census, 2000

Figure 6
Lincoln Park PMQs - Historical Population 1968-2000



Source: City of Calgary Civic Census, 2000

Figure 7
CFB West Study Area - Population by Age Category

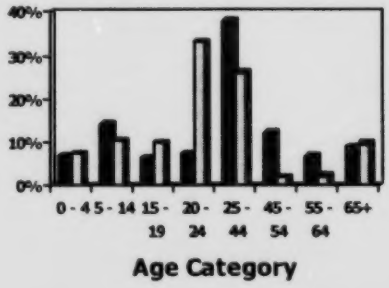


Source: City of Calgary Civic Census, 2000

2.5.2 Age Distribution

The age profile of the study area in 1996 (the last year for which complete age distribution data are available) was different from that of a typical Calgary community. Young adults dominated the Currie Barracks, and young families dominated the Lincoln Park PMQs. Because of the seniors' housing provided in the area, older age groups characterize the Lincoln Park Redevelopment Area. The age profile of the study area, therefore, shows lower than usual percentages of people in the 45 to 64 age groups. (Note that the age information was collected in 1996, and reflects the military population in the study area.)

Figure 8
CFB West Study Area - Population by Age Category



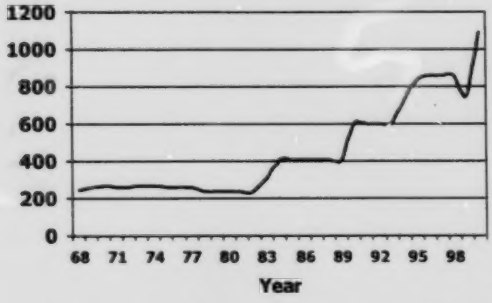
Source: City of Calgary Civic Census, 1998 (1996 data)

2.6 Housing

2.6.1 Trends

The two main housing areas within the study area are the Lincoln Park Permanent Married Quarters (PMQs) and the Lincoln Park Redevelopment Area. The PMQs have had the same number of dwelling units for many years. The Lincoln Park Redevelopment Area shows more variation: there were very few homes in the area prior to 1983. Development began with construction of new housing in 1983 and 1984. Following this initial development, there were no units added until 1990. Since 1994, more homes have been added to the total each year. The PMQ housing therefore dominates the period from 1968 to 1983, and all subsequent growth occurred in the Lincoln Park Redevelopment Area.

Figure 9
CFB West Study Area - Dwelling Units
1968 - 2000

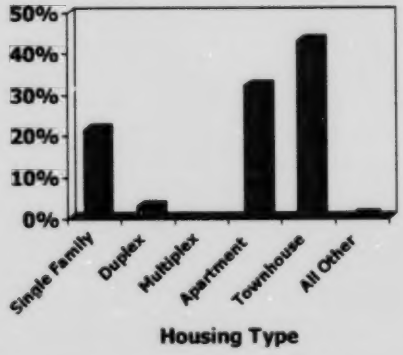


Source: City of Calgary Civic Census, 2000

2.6.2 Housing Types

Almost all of the housing in the Lincoln Park Redevelopment Area is multi-family. Apartments and row housing account for about 75% of all dwelling units in the community. In the Lincoln Park PMQ area, about 90% of the homes are single family, and the remainder are semi-detached.

Figure 10
CFB West Study Area
Dwelling Units by Housing Type



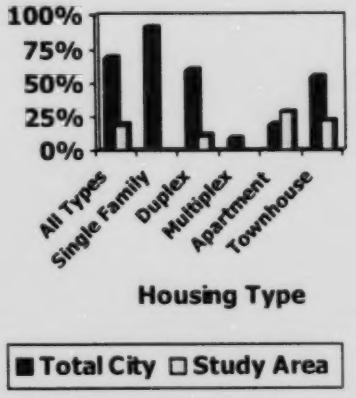
Source: City of Calgary Civic Census, 2000

2.6.3 Home Ownership

About 25% of the homes in the Lincoln Park Redevelopment Area are owner-occupied. Owners occupy about 29% of apartments and about 22% of row housing. This compares to about 68% of all homes in Calgary, 19% of all apartments, and 54% of all row housing. The number of units operated by Calhome Properties and Alberta Municipal Affairs as low-income rental housing, and the number of seniors' rental units, account for the lower percentage of owner-occupied homes.

Lincoln Park PMQ area homes are being rented at least until the planning process is complete and redevelopment of the area begins. This situation contributes to the low percentage of home ownership in the study area.

Figure 11
CFB West Study Area
Home Ownership
as % of Total Occupied Dwellings



Source: City of Calgary Civic Census, 2000

2.6.4 Household Size

The number of people in each household has remained relatively stable in the residential development since 1983. The current household size, at 2.42 persons per household, is lower than the figure for the city, at 2.64. The rate is much lower in apartments, at only 1.20. The city figure for apartments is 1.55.

2.7 Social Characteristics

2.7.1 Lincoln Park Redevelopment Area

Some of the economic and social characteristics of the Lincoln Park Redevelopment Area reflect the populations served by the specialized housing developments in the community. The median household income for the area is about 50% of the median household income for the city of Calgary as a whole. Higher than average percentages of households have income below Statistics Canada's low income cut-off levels. The percentage of people receiving Supports for Independence is about four times the Calgary average. Over half of tenants spend more than 30% of their household income on shelter. There is a high percentage of seniors living alone, as well as a higher than average percentage of lone parent families.

Within this area, there are housing developments that do not match this socio-economic profile. However, the specialized housing tends to dominate the figures for the community district.

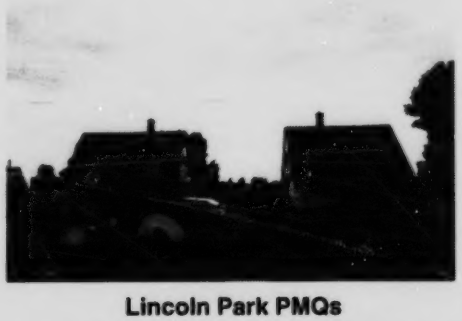
2.7.2 Lincoln Park PMQ Area

Most of the data for social characteristics is from the 1996 Federal Census. This information would have been collected when military personnel were using the Lincoln Park PMQs, and would therefore not be applicable to the current residents of this area. Therefore, it has not been included in this document.

2.8 Existing Development

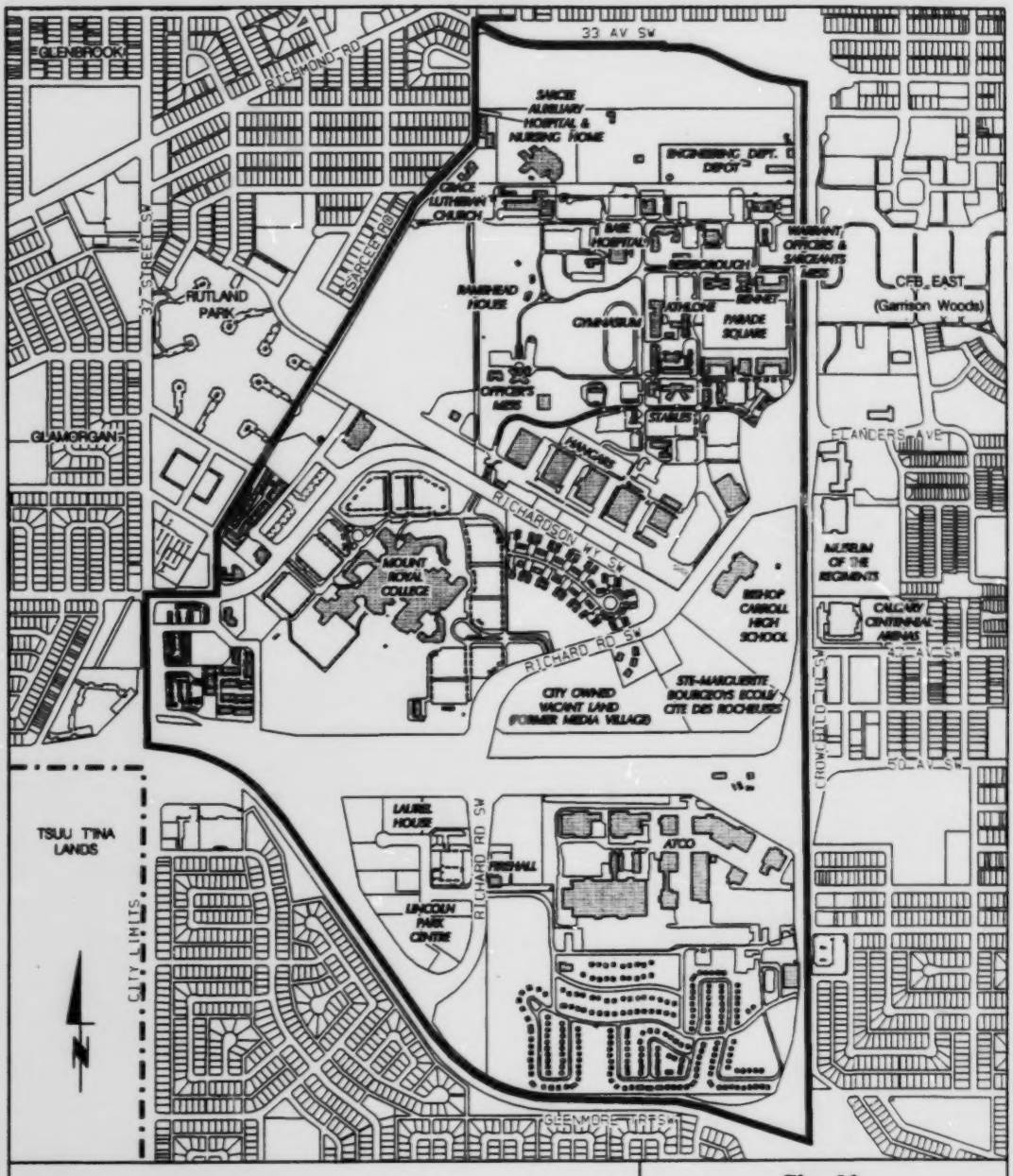
2.8.1 Lincoln Park PMQ Area

The Lincoln Park Permanent Married Quarters (PMQs) served as a residential area for soldiers stationed at CFB Calgary and their families. The site consists largely of residential units, with some recreational and storage facilities. The PMQ area is laid out along several curvilinear streets and crescents, with generous amounts of open space. As with the Currie PMQs on the east side of Crowchild Trail, the houses front onto walkways and common open space and the roads function as lanes, providing access to the backs of houses.



Lincoln Park PMQs

There are 234 houses in the Lincoln Park PMQ area, consisting of 212 single-detached homes, and 22 duplex units. The homes were built between the late 1940s and mid-1950s. These units are well maintained, although they are smaller than typical new homes. The single-detached units range in size from 63 square metres (685 square feet) to 153 square metres (1,649 square feet), and the duplex units range from 83 square metres (899 square feet) to 127 square metres (1,367 square feet). (See Table 2.) Generally, the semi-detached units are located on irregularly shaped corner lots. The housing stock is typical of post-war housing found elsewhere in the city, in communities like West Hillhurst, Renfrew, Bankview and Altadore.



CFB West Master Plan Boundary

Fig. 12

CFB WEST KEY BUILDINGS

0 100 200 300 400 500m

THE CITY OF CALGARY
LAND USE AND MOBILITY PLANNING POLICY

Plot Date 09-AUG-2000 Draw No. CFBSTUDY 4167b

The buildings are of wood frame construction and have a simple, solid and utilitarian design. Generally, the units are well maintained and in good condition because of regular maintenance. However, few changes have been made to the homes since they were originally built.

Table 2

House Type	Number	Storeys	Bedrooms	Area (m^2)
Detached	34	1	2	63.6
Detached	19	1-1 1/2	2	88.3
Detached	94	1-1 1/2	3	81.5
Semi-detached	2	1-1 1/2	3	83.5
Detached	20	1-1 1/2	3	100.5
Detached	15	2	3	99.7
Semi-detached	4	2	3	95.7
Detached	3	2	3	135.2
Semi-detached	2	2	3	127.0
Detached	22	2	4	109.8
Semi-detached	14	2	4	110.6
Detached	5	2	4	153.2
Total	234			Average 89.5

In addition to the housing, Lincoln Park includes some recreational facilities, including an outdoor pool with change rooms, an outdoor rink, sports fields, tot lots, baseball diamonds and a playground. There is also a large storage building and a small building used as a first aid office.

2.8.2 Currie Barracks

The Currie Barracks site represents the operational component of CFB Calgary. Therefore, the majority of the existing structures are directly related to military requirements: barracks, storage buildings, vehicle garages, messes, administration and offices. There are also several residences and a number of recreational facilities.

The majority of the structures on the site were constructed between the 1930s and the 1950s. The structures are situated predominantly in the eastern and southern portions of the site along a grid network of roads. Most of the structures are located within 200 metres of the parade square. In addition, there is a group of former hangars in the southern portion of the site, which the military used for vehicle storage and related facilities. Some of these buildings are currently being used for film production purposes as an interim use.

The officers' residences and mess are located to the west of the main part of the Base, separated by a sports field and running track. There is one office and storage building located in the northwest portion of the site. The remainder of the west side of the Currie Barracks site is largely undeveloped.

There are 93 structures on the site, composed of 70 buildings and 23 other structures (see Table 3). The Base buildings include storage buildings, barracks blocks, administration buildings, and the base hospital and clinic. In addition to these, there are several structures that were used for recreational and training facilities, including Parade Square, tennis courts, fitness trail, sports field, gymnasium, swimming pool and indoor rifle range.

Table 3

Currie Barracks Exiting Structures			
Description	**Number of Buildings**	**Gross Area (m^2)**	**Types**
Quarters	5	2,984.3	officers, NCOs, and married quarters
Barracks	4	20,010.8	barrack blocks
Stores	33	15,605.2	stores and supply with some offices
Administration	11	17,488.3	administrative and office, with some storage
Miscellaneous Administration	6	2,095.1	guard houses, gate houses, lecture and training
Vehicle Related	15	23,101.6	garage, POL, stores, workshops, and vehicle wash
Health Facilities	2	509.9	dental clinic, base hospital
Recreational and Training Facilities	22	15,640.2	messes, clubs, recreation centre, BBQ shelters, green house and nursery, drill hall aand gazebo, parade square, pole orchard, tennis courts, fitness trail, sports fields
Total Structures	98	97,435.4	

Most of the buildings are one storey, with some two-storey and some larger buildings, usually concentrated in the parade square complex or immediately to the north.

2.8.3 Department of National Defence Lands

The Department of National Defence has retained a portion of land south of the existing main entrance road from Flanders Avenue. This 3.2 ha (8 acre) site includes a recently constructed administration building, called the Waters Building, and a new storage and maintenance building. The facilities here house the Area Support Unit for Calgary, as well as the reservists.

Waters Building

2.8.4 Lincoln Park Redevelopment Area

Land became available for redevelopment in this area following the 1964 closure of the Lincoln Park Air Station. The dominant existing use in this area is Mount Royal College. Its main site occupies almost 35 hectares (86 acres), with an additional seven hectares (18 acres) of land used for student housing. The College relocated to this site in 1972. The College was designed as a single building, surrounded by surface parking lots, sports fields and landscaped areas. During the 1980s, additions were made to the original building, to house a recreation facility and a science and technology component. The playing fields and landscaped areas account for approximately 16 ha (39 ac) of the land. The student housing was completed in 1989, and consists of 153 townhouse units, which provide shared accommodation for 465 single students. During the 1998-1999 school year, the College accommodated the equivalent of 6,344 full-time students.

Mount Royal College

Bishop Carroll High School, located on Richard Road, was completed in 1971. The school is operated by the Calgary Roman Catholic School Board, and draws students from all parts of the city for its program of individualized instruction. An addition was completed in 1989. The school playing fields include space for football, soccer and baseball.

Bishop Carroll High School

Another school serving a large region was constructed in 1996, also on Richard Road. Ecole Ste-Marguerite Bourgeoys Francophone is a French language school serving Francophone students from kindergarten to Grade 12.

The school shares some facilities, including the theatre, meeting space, the resource centre and parking, with its neighbour, the Cité des Rocheuses community centre, owned and operated by La Societé Scolaire Communautaire de Calgary. The centre has a daycare facility and a playschool, and is home to over 26 francophone organizations in Calgary.

There is a parcel of land owned by the City of Calgary, located west of the Francophone community centre and north of 50 Avenue. Four multi-family units are located on this parcel, three of which are leased to Mount Royal College. The fourth is leased to a Metis group.

There are several residential developments in the Lincoln Park Redevelopment Area. These are

Lincoln Park Redevelopment Area Housing

located west of Mount Royal College, along Sarcee Road and Richardson Way. Alberta Municipal Affairs' Housing and Consumer Affairs owns three of these. They include 168 units, 103 of which are self-contained senior citizens' dwellings, operated by the Bethany Care Society. Calhome Properties also owns 112 stacked townhouse units, rented to low-income families and singles. In addition, there are two group homes for special needs integrated into the design. About 55% of these units are occupied by residents in core need (spending more than 30% of their income on shelter).

There are four private condominium developments in the area, including a project for older adults, with a total of 188 units.

There is also a recent project known as Carewest Royal Park. This is an example of a joint venture between Carewest and a private developer, designed to provide continuing care and private rental apartments for seniors under one roof. The top two levels contain 105 rental apartment units, and the main floor houses a continuing care centre with 50 suites. As their health care needs change, residents may be able to remain in the complex. Royal Park represents a significant move away from the traditional medical model of care to a more home-like, residential focus. The facility is fully occupied.

Other structures in the Lincoln Park Redevelopment Area include the Bethany Chapel constructed in 1985, the Developmental Disabilities Resource Centre of Calgary, and a medical clinic completed in 1989. The Developmental Disabilities Resource Centre of Calgary is Alberta's largest service provider for persons with disabilities.

The ATCO Industrial Park occupies about 70 acres of land owned by the City of Calgary. This was the site of the south hangar line for the Lincoln Park Air Station. The hangars were originally built in the 1930s and 1940s and have been reused for

various manufacturing, storage, and recreational uses. ATCO Structures Inc. relocated its headquarters here from Airdrie in 1965.

In addition to these developed areas, there is an area of privately-owned land located between Glenmore Trail and Richard Road, and south of the 50 Avenue right-of-way. The parcel is beginning to develop, under land use designations approved by Council in the early 1990s, permitting the landowners to proceed with development plans. The parcels across the north end of this area, adjacent to the 50 Avenue right-of-way, are being developed with multi-family residential units. In the southern part of the area, which is called Lincoln Park Centre, a number of uses either have been approved and are underway, or are in the approval process. These include an auto dealership, retail stores and office buildings, and a church. Taken together, this area represents a form of mixed use development, by placing different activities in close proximity to one another.

2.8.5 North Planning Area

In the northwest portion of the study area, CareWest (Calgary Regional Health Authority) operates CareWest - Sarcee, a long-term care facility with 175 beds for seniors. In addition, Grace Lutheran Church and Grace Lutheran Manor are located here. The Manor has 65 units of senior citizens' housing, operated by the Grace-Bankview House Senior Citizens Residence Society.

Across the northern portion of the study area, existing uses include Richmond Green Park, Richmond Green Golf Course, and the City of Calgary storage and depot facilities. The park and golf course are connected to the north by a pedestrian overpass over 33 Avenue. An access road from 33 Avenue separates the golf course and park, and also provides access to the City yards.

The City yards are used for storage of equipment, gravel, salt, landscaping materials, and other materials used by the Community Vitality and Protection and Roads departments. Heavy truck traffic uses the access road to 33 Avenue adjacent to the golf course and tot lot.

City Yards

2.9 Existing Open Space

The study area includes several existing open spaces, including open spaces on the former CFB Calgary lands and the Mount Royal College site.

The Currie Barracks site features a significant concentration of trees, located in the centre of the site where trees and green space surround the officers' residences and facilities. This area also includes the running track, fitness trail, tennis courts, and football and soccer fields. The portion of the Currie Barracks site along Sarcee Road is treeless. This area contains the highest points of land, offering views of the mountains to the southwest. Also located on the Currie Barrack site is Parade Square, covering 2.4 ha +/- (6 ac+/-), which is currently a paved, level space.

The Lincoln Park PMQ area contains several developed parks and extensive areas of open space located between and behind the existing residences. In the northwest corner of the site, there is a playing field containing two baseball diamonds and a tot lot. There is some open space surrounding the outdoor swimming pool, another tot lot in the centre of the site, and a playground and outdoor rink in the eastern portion of the site.

Mount Royal College includes playing fields, landscaped areas, and other open space, covering a total of 28 ha+/- (69 ac+/-) of the site. These include football and soccer fields, a pond, and a high point of land providing some downtown views.

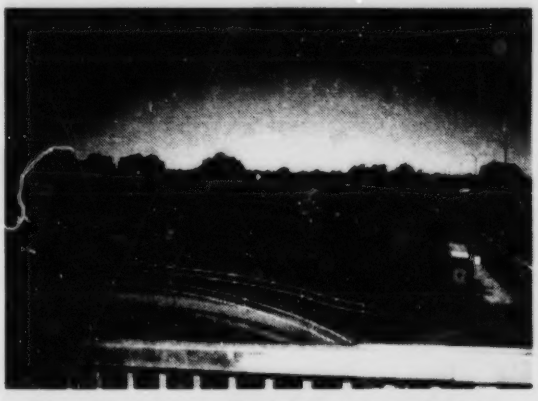
Richmond Green, in the north of the planning area, covers 17+/- ha (41.8 ac+/-). It contains a par-3 nine-hole golf course, Calgary's Community Vitality and Protection Field Office (formerly Centre West Area Office), four tennis courts, three ball diamonds, and one tot lot.

Richmond Green Golf Course

The two separate schools located between Richard Road, Crowchild Trail, and 50 Avenue cover an area of 13.2+/- ha (32.6 ac+/-). Bishop Carroll High School has fields for football, soccer and baseball.

Within the Lincoln Park Redevelopment Area, associated with the residential development on the west side of the planning area, there are four open space parcels. These total 2.1 ha (5.2 ac), and are developed as passive park space.

New public parks in the redeveloped areas will be created through the reserve dedication process. Under Provincial law, developers are required to dedicate 10% of any parcel 2 acres and above to be subdivided to the City of Calgary for educational and recreational purposes. As no public schools are required in this area, all of the reserve dedication can be developed as park space.



Richmond Green Park from the pedestrian overpass

Reserves are still owing for the Currie Barracks lands, the City-owned lands leased by ATCO, the Lincoln Park PMQ area, and any surplus portions of the 50 Avenue right-of-way. In addition, approximately 1.2 ha+/- (3 ac+/-) of reserve were deferred from the CFB East lands and will be taken as local park space in the CFB West plan area.

2.10 Transportation Network

The CFB West plan area is well located within the city's primary road network, providing easy access to the downtown core by way of Crowchild Trail and east-west access via Glenmore Trail (see Figure 1). Four roads form the planning area's boundaries:

- Crowchild Trail to the east is a six-lane divided expressway standard road with grade separated interchanges at Glenmore Trail, Flanders Avenue and 33 Avenue, and an at-grade signalized intersection at 50 Avenue.

- Glenmore Trail to the south is a four-lane divided expressway standard road with a grade separated interchange at Crowchild Trail, and at-grade (right-in/out only) intersection at Richard Road, and an at-grade signalized intersection at 37 Street.

- To the west, Sarcee Road is designated as an undivided collector standard road with one traffic lane in each direction and parking permitted on-street.

- To the north, 33 Avenue west of Crowchild Trail is a four-lane divided major standard road with a grade separated interchange at Crowchild Trail, an at-grade signalized intersection at Sarcee Road, and an at-grade unsignalized intersection immediately west of Crowchild Trail providing access to the golf course and the City Yards.

All of the roads that form the boundaries of the planning area are designated as truck routes, with Glenmore Trail also designated as a dangerous goods route. The truck route designation on Sarcee Road became redundant when military vehicles ceased to use the road to access the former Currie Barracks.

2.10.1 Internal Road Network

• Former CFB Calgary Lands

The road network within the former military portion of the Plan area was constructed by the Department of National Defence to its own specifications and consequently does not conform to City standards. The roads on site are noticeably narrower than the surrounding City street system. Two stretches of road are divided by grassed medians.

The roadway circulation system is significantly undersized for a normal residential or industrial subdivision. There is little provision for on-street parking, although there are areas of pavement used for off-street parking and storage.

The Currie Barracks site has an extensive existing road system paved with asphalt and laid out in a slightly modified grid pattern in the eastern portion of the site. There are four major east-west roads and three principle north-south routes, as well as a variety of smaller connecting lanes and roads. In the western portion of the site, the road network is much less developed, limited to the roads which access the officers' facilities and a north-south gravel road connecting Hochwald Avenue and the West Gate with the heli-pad and south entrance.

The road network within the Lincoln Park PMQ area provides access to the existing houses and facilities. With the exception of Sinai Avenue along the northern limit of the site, the streets follow a

curvilinear pattern, with a series of crescents opening off Cyprus Avenue. The roads are narrow, similar to roads in the Currie Barracks site. There are no sidewalks, but there are a number of paved walkways located behind the houses, leading to community facilities.

The majority of the roads include concrete curbs and catch basin connections to the storm sewer system. However, several of the roadways would likely need to have increased pavement widths in order to meet normal residential subdivision requirements for traffic flow and on-street parking. In addition, the curbs are in variable condition, and are not effective in some areas.

• Other Portions of the Study Area

Three major roads serve the Lincoln Park Redevelopment Area. These include:

- Richard Road, which connects Flanders Avenue in the north to Glenmore Trail in the south, with two driving lanes in each direction;
- 50 Avenue, connecting Richard Road in the west to Crowchild Trail in the east, with two driving lanes in each direction;
- Richardson Way, which connects Richard Road in the east to Sarcee Road and 37 Street in the west, providing two driving lanes in either direction.

In addition, local roads provide access to the residential developments on the west side of the study area. The ATCO Industrial Park has no public road network.

2.10.2 Connections to the External Road Network

The former CFB lands are characterized by a limited number of access points, some stemming from the requirements of military security. The Crowchild Trail expressway provides access along the east boundary of the plan area, at 33 Avenue, Flanders Avenue, 50 Avenue, and Glenmore Trail. Glenmore Trail is accessible via Crowchild Trail at an interchange southeast of Lincoln Park, at Richard Road (right turn only) and 37 Street. The city's street grid connects to the roads forming the boundaries of the plan area at several points. Along the west side, these lie between 33 and 46 Avenues.

Three points provide controlled access to the Currie Barrack site: Flanders Avenue at the east entrance to the site, Richardson Way along its southern boundary, and Sarcee Road at Hochwald Avenue in the northwest corner. The access on the south is closed to traffic.

Access to the Richmond Green Golf Course, Richmond Green Park, Community Vitality and Protection Field Office (formerly Centre West Area Office) and City works yards is provided by a roadway connecting to 33 Avenue west of the interchange with Crowchild Trail.

Access to the Lincoln Park PMQ area is provided only by Richard Road, with limited turns onto Glenmore Trail to the south, and access to Crowchild Trail and Flanders Avenue in the north.

The existing residential areas on the west side of the plan area have access points on 37 Street, 46 Avenue, and Richardson Way.

Access to the ATCO site is provided by 50 Avenue.

Access to the Lincoln Park Centre commercial area and the adjacent residential area is provided from Richard Road via Richard Way.

2.10.3 External Traffic Volumes

The most recent daily traffic volumes on the road system surrounding the planning area are shown on Figure 13. The current daily volumes on the external road system vary from a high of 89,000 vehicles per day on Crowchild Trail, to about 5,500 vehicles per day on Sarcee Road, south of 33 Avenue.

2.11 Transit

There are several bus routes serving the site (see Figure 14). Three Blue Arrow express routes to downtown Calgary have stops on 33 Avenue between 29 Street and Crowchild Trail, and one of these also has stops along Sarcee Road between Richardson Way and 33 Avenue. Mount Royal College is served by several routes, which also provide accessible low floor bus service. Two of these provide connections between Mount Royal College and the downtown. One connects the Heritage LRT station in the south to destinations in northwest and north Calgary, including the University of Calgary and Foothills Hospital, with stops at Mount Royal College. Calgary Transit's Circle Routes, connecting all quadrants of the city, also serve Mount Royal College.

There is no LRT service planned for this area. The need for a future LRT line to Mount Royal College, Lincoln Park and the communities south of Richmond Road was reviewed in the 1980s as part of the West LRT Functional Study. The study evaluated the feasibility of developing a north-south spur line along Crowchild Trail, 29 Street SW, or 37 Street SW to connect with the main east-west LRT route along Bow Trail and 17 Avenue SW.

It was determined that a spur line along any of the potential north-south roadways noted above would be extremely expensive and disruptive to adjacent communities as there is insufficient road right-of-way to accommodate the required LRT tracks and stations. It was also concluded that future population and employment growth south of Richmond Road could be effectively serviced by providing conventional downtown and cross-town bus service at a much lower cost than by extending LRT. For these reasons, no action was taken to designate or protect a future LRT right-of-way in this area.

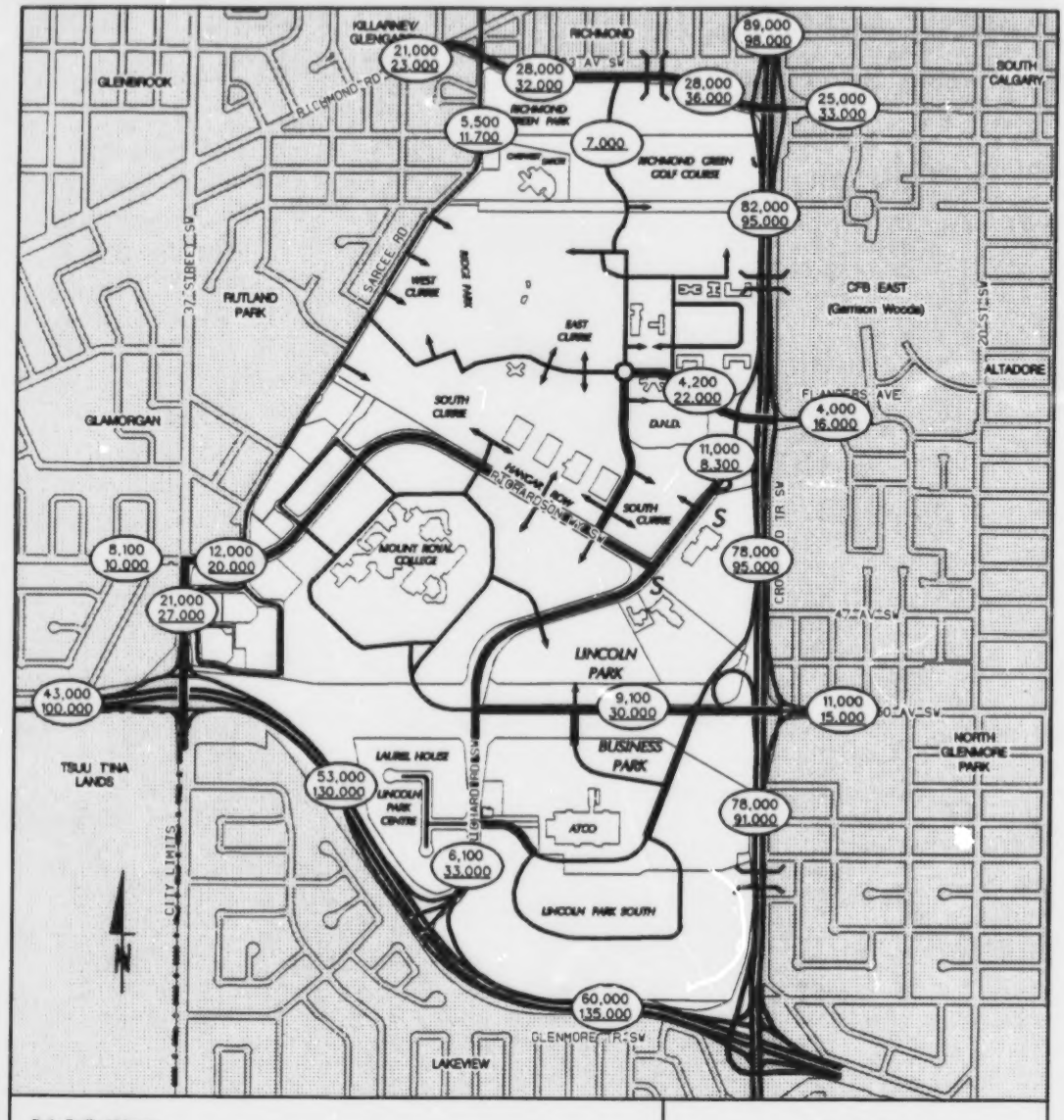
2.12 Parking

The Currie Barracks and Lincoln Park PMQs portions of the Plan area contain extensive parking, consisting of both paved and unpaved lots. Parking areas within the Currie Barracks site account for more than 6 hectares (more than 15.5 acres).

Mount Royal College provides surface parking on site for its students and employees, with a total of 2,983 stalls. Some students park on the undeveloped 50 Avenue right-of-way. The surface parking currently covers about 11.5 ha (28.4 ac) of the campus land. In addition, the College provides 315 stalls for student residents.

2.13 Pedestrian Circulation

The former base portions of the Plan area have provisions for pedestrian access and circulation. The generally narrow road widths and the presence of



Daily Traffic Volumes

9,100 Most Recent Daily Traffic Volumes

33,000 2018 Forecast Daily Traffic Volumes

Pedestrian and Bike Overpass

NOTE: The 2018 traffic volumes forecast accounts for a 45% growth in city population from 860,000 to 1,250,000.

Fig. 13

TRAFFIC VOLUMES

0 400 800m

THE CITY OF CALGARY
LAND USE AND MOBILITY PLANNING POLICY

Plot Date: 30-AUG-2000 Draw No. CFBSTUDY:traffic

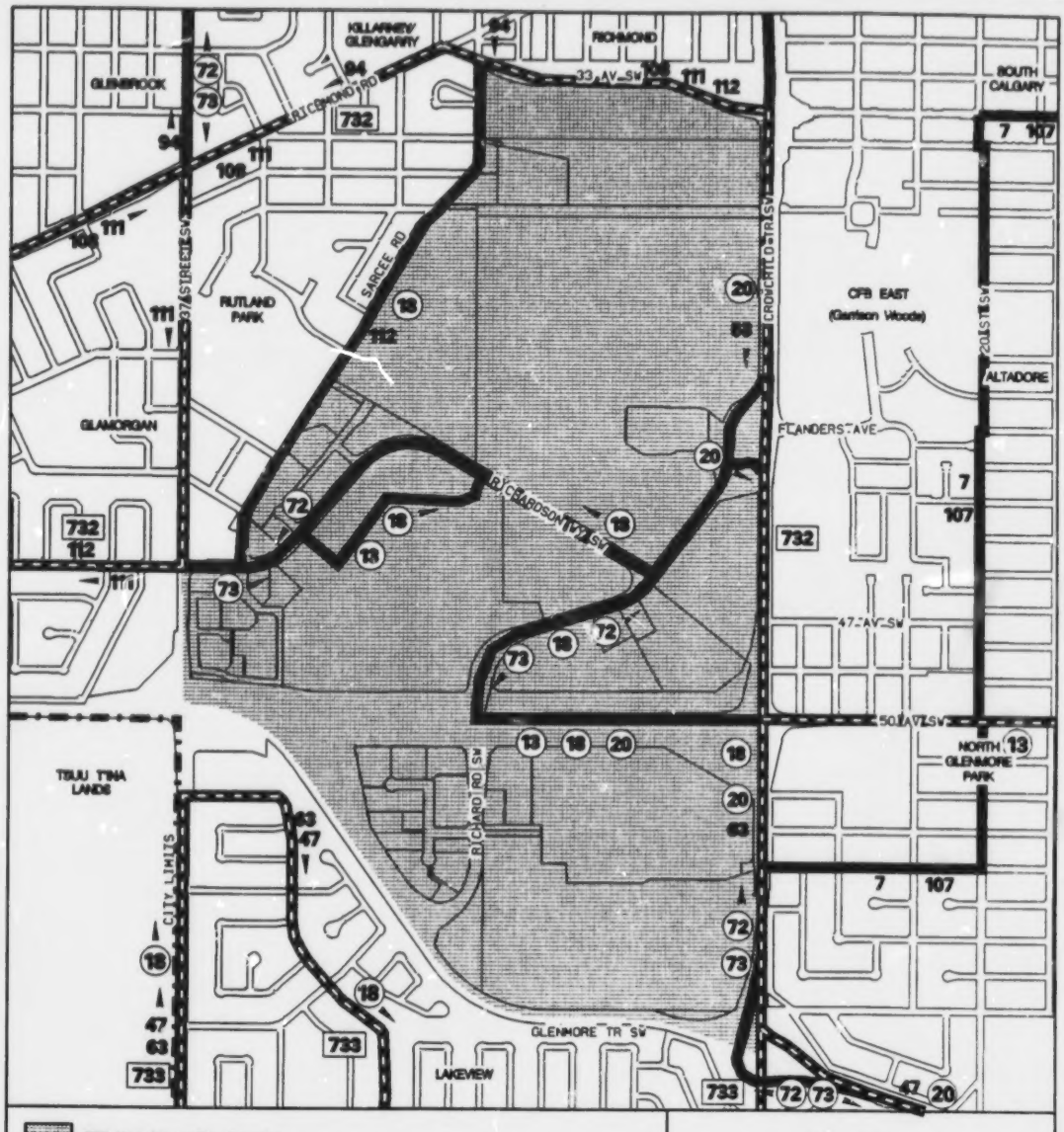


Fig. 14

EXISTING TRANSIT ROUTES

speed bumps serve to reduce traffic speed on the sites, and thereby increase pedestrian safety.

Pedestrians have access to the former Currie Barracks using either the overpass over Crowchild Trail from the former Currie PMQ area at Somme Avenue, or the Flanders Avenue overpass. Throughout the site there are a number of walkways, particularly in the vicinity of the Parade Square. In addition, there are running tracks located in the central and western portions of the site.

Pedestrian circulation in the Lincoln Park PMQ area is provided by the walkways located behind and between the residences that are well separated from traffic. Pedestrian overpasses and underpasses provide connections to surrounding neighbourhoods at two points. At the northeast corner of the PMQ area, an overpass connects to the retail centre on the east side of Crowchild Trail in North Glenmore Park.

In the north of the study area, an overpass across 33 Avenue provides pedestrian access to Richmond Green. Regional pathways and bikeways follow Sarcee Road and 37 Street. These eventually connect with the pathway systems in the Weaselhead area, around the Glenmore Reservoir, and along the Bow River. Bikeways on the east side of Crowchild Trail provide connections to Glenmore Park, Glenmore Athletic Park, and the pathways along the Elbow River. The arrangement of open space in the residential area on the west portion of the study area helps to create some linkages to the regional systems.

Pedestrian circulation within the Mount Royal College site provides links between the central college building and the surrounding parking lots, student residences and playing fields.

2.14 Existing Servicing and Utilities

The Currie Barracks portion of the planning area, developed over a period of 60 years, has a wide variety of existing buildings, ranging from the vehicle storage hangars to the Brigadier General's residence. The infrastructure has been installed over the 60-year period as needed to service the various buildings. In all likelihood, there are abandoned utility lines across the site, as well as the infrastructure that is servicing the current buildings. The undeveloped western portion of the site has no servicing. The western portion of the Lincoln Park PMQ site is similarly undeveloped, and no services currently exist.

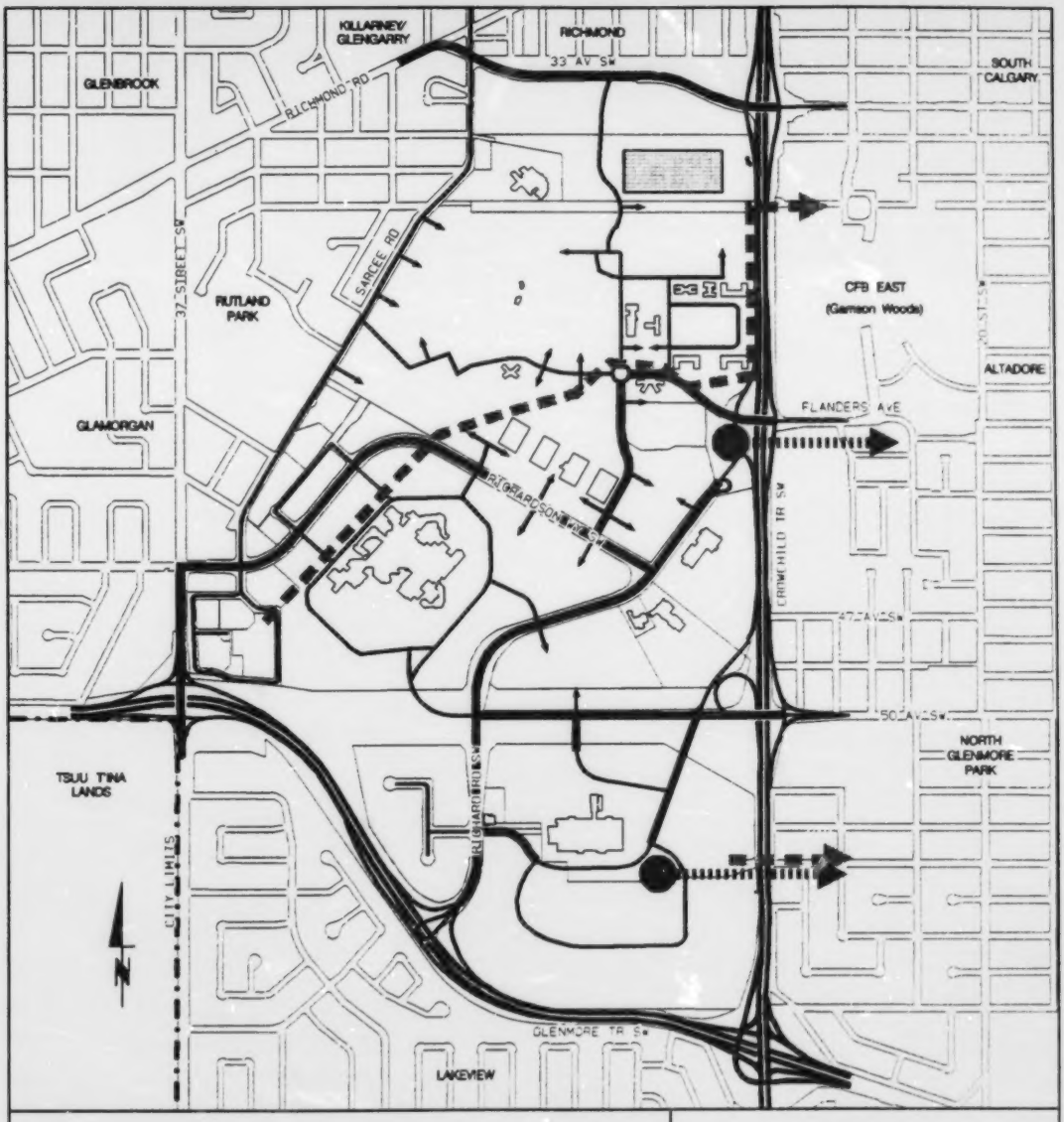
The current storm sewer, sanitary sewer, watermain and gas main networks are illustrated on Figure 15.

2.14.1 Currie Barracks

• Sanitary Sewers

There is an extensive system of sanitary sewers that currently service existing buildings. These systems connect to the City's system at a number of points at Crowchild Trail. The system is considered to be in reasonable operating condition, and pipes have been repaired and replaced as necessary. However, the system does not conform to current City standards. There are a number of abandoned lines, which provided sewer service to buildings that have since been demolished.

There is a major sanitary sewer trunk running southwest to northeast across the Currie Barracks area. New sanitary sewer systems can be connected into this line.


KILLARNEY/ GLENGARRY
RICHMOND
33 AV SW
GLENBROOK
RICHMOND RD
SOUTH CALGARY
37 STREET SW
RUTLAND PARK
SARCEE RD
CFB EAST (Garrison Woods)
ALTADORE
FLANDERS AVE
GLAMORGAN
R.C. RICHARDSON TR SW
CRANDELL DR SW
47 AV SW
50 AV SW
NORTH GLENMORE PARK
TSUU T'INA LANDS
CITY LIMITS
RICHARDSON RD SW
GLENMORE TR SW
LAKEVIEW
N
Water Reservoir
Sanitary Trunk
Storm Trunk
Stormwater Management Required
Fig. 15
UTILITIES
0
400
800m
THE CITY OF CALGARY
LAND USE AND MOBILITY PLANNING POLICY
Plot Date: 28-AUG-2000
Drawing No: CFBSTUDY utilities

• Watermains

Currie Barracks has a system of watermain loops and fire hydrants, some of which has sufficient capacity to permit reuse, at least for interim development. The system is connected to the City's water system at three points, two on Crowchild Trail and one on Sarcee Road. New systems can be connected to offsite mains around the perimeter of the planning area.

The system is considered to be in fair operating condition, although it has been built to Department of Defence standards that do not conform to current City standards. Existing sections of cast iron pipe will need to be replaced by the new systems.

• Storm Sewer

The on-site storm sewer system is somewhat rudimentary and the downstream capacity is limited. On-site stormwater management will avoid the need to increase the size of downstream storm sewer mains. The system connects with the City's storm sewer system at three points along Crowchild Trail.

Over time, the system has been upgraded, repaired and replaced as needed. However, as the system has not been designed to City standards, a comprehensive redevelopment of the site would require upgrading, expansion, and replacement.

• Shallow Utilities

The shallow utility systems, including gas, electricity, and telephone, have sufficient capacity to service existing land uses. Localized upgrading will be needed to service redevelopment, and the replacement of overhead lines with buried lines will give an opportunity to ensure that there is adequate capacity in the telephone and electric systems. Currently, there is minimal cable television service on the site.

A system operated by the Department of National Defence has provided distribution of natural gas in the past. The system now includes a number of abandoned and capped lines that formerly provided service to buildings that have since been demolished.

The electrical system on Currie Barracks is largely buried, and was substantially upgraded in the 1980s. It connects to the City system at the northwest corner of the site.

The Department of National Defence operated the telephone system. This will need to be upgraded to current standards.

2.14.2 Lincoln Park PMQs

• Sanitary Sewer

The system providing service to this residential area was partially upgraded in the late 1980s. The capacity is adequate for current densities, but would require upgrades if additional residents are added to this area.

• Watermains

Major augmenting of the water main system will be needed to meet future land uses. The system is in generally fair condition, and was upgraded in the late 1980s. The watermains, however, require repairs for leaks, and some sections of the line will be replaced. The existing built area is well serviced,

but when development is extended to the currently undeveloped western portion of the site, the infrastructure will require extension and upgrading. Significant residential intensification will require upgrading of the system to increase capacity, and replace cast iron piping.

• Storm Sewer

The Lincoln Park PMQ area is approximately 50 to 60% serviced by in-ground storm sewers. Some upgrading of the system will be needed to accommodate new development in the northwest quadrant of the site, although it is unlikely that the on-site lines will be significantly increased in size, given the size of off-site connections. When the storm system capacity becomes a limiting factor, it will be necessary to implement a minor stormwater management scheme on the east side of the site.

The remainder of the stormwater system consists of open ditches and culverts. Redevelopment in areas served by this component of the system will require an expanded network to handle the increased run-off.

• Shallow Utilities

ATCO Gas, Telus, Shaw Cable, and EnMax provide services to the developed portions of the site. New uses or increased densities would require upgrades to these systems. Electrical services will be placed underground.

2.14.3 Other Portions of the Study Area

The ATCO Industrial Park's current services do not meet City standards, and future redevelopment of the site will require upgraded services.

There is a sanitary sewer trunk running west to east parallel to the 50 Avenue alignment. It services areas south and west of the planning area.

The other portions of the study area are served by all the usual utilities. The future land uses will determine the need to upgrade these services.

One significant utility use is the reservoir located beneath the Richmond Green Golf Course. Treated water is pumped from the Glenmore Water Treatment Plant and held here before being pumped to other locations in the city. The reservoir consists of a concrete tank, with a capacity of about 34,000,000 gallons. It is about 20 feet deep, 1000 feet long, and 200 feet wide. This reservoir poses some restrictions on any development on the surface: there can be no structures, and no heavy vehicle traffic. Given these restrictions, the golf course use is likely to remain for some time.

2.15 Archaeological Sites

Studies undertaken for Public Works and Government Services Canada conclude that there are no known or suspected archaeological sites in the area[1]. A brief historical survey indicated that there is a low probability of historic or prehistoric archaeological resources on the site. Archival maps, historic photos, aerial photos, and anecdotal evidence indicate that the site was undeveloped pasturage until the acquisition of the site by the military. The site's distance from permanent water also makes it unlikely that there was seasonal or perennial native occupation of the site.

[1] Robert Kojima, Survey of potential archaeological and historical resources and sites: Currie Barracks, Currie MQs and Lincoln Park, prepared for Public Works and government Services Canada, April 1996

2.16 Heritage Conservation

2.16.1 Historically Significant Features

The Base is historically significant because of its connections to establishing permanent forces in Alberta, militia training and permanent force recruitment, and Canadian Forces involvement in World War II, the Korean War, and a series of United Nations peacekeeping assignments. The original buildings are over 60 years old and feature classically inspired design. Tree-lined, curving roadways leading to the officers' residences and the formal garden adjacent to the Officers' Mess, are also significant features of the site.

Street names on the Currie Barracks site commemorate World War II battles, and those in the Lincoln Park PMQ area are named for peacekeeping missions.

More than a dozen sites on CFB Calgary lands have been identified as having some historical significance. They include:

- Parade Square and the buildings surrounding it;
- the stables, training building, motor transport garage, and forage barn in the area south and west of Parade Square; and
- the Officers' Mess building and garden, the base commander's residence, the brigade commander's residence, and the roadway connecting these three buildings.

Simply identifying these sites does not provide any legal protection for them. In the case of CFB Calgary, such legal protection requires provincial or municipal designation under Alberta's Historical Resources Act. The City of Calgary has listed several sites within the plan area on its "Inventory of Potential Heritage Sites". All development permits for sites on the "Inventory" are reviewed by the City of Calgary's Heritage Planner and referred to the Heritage Advisory Board, which makes recommendations to the Development & Building Approvals/Planning Policy Business Units. For more details on development application procedures for heritage sites, see Appendix I.

The Province has designated some of these sites as a Provincial Historic Resource.

There are two levels of provincial designation: **Provincial Historic Resource**, which is the highest designation; and **Registered Historic Resource**, which requires the owner of a historic resource to give the Province a 90-day notice period prior to undertaking an alteration.

The Province of Alberta's Historical Resources Foundation heard representations from the landowner and others. Following this hearing, the Foundation made a recommendation on the designations to the Minister of Alberta Community Development. The Minister subsequently designated several sites as a Provincial Historic Resource.

Owners of **Provincial Historic Resources** are required, under the terms of the Historical Resources Act, to notify Alberta Community Development of any work proposed to be undertaken on the designated property. No work can legally proceed on a Provincial Historic Resource until an Approval Document outlining an approved scope of work is issued by Alberta Community Development. The City of Calgary will not release a permit affecting a Provincial Historic

Resource without such an Approval Document. For more details on the development applications procedures for Provincial Historic Resources and Registered Historic Resources, see Appendix I.

The following is a list of the components of the Provincial Historic Resource at the time of printing of this document.

- Athlone Building (immediately west of Parade Square) - exterior façades only
- Bessborough Building (north west corner of Parade Square) - exterior façades only
- Bennett Building (north side of Parade Square) - exterior façades only
- The three barracks buildings adjacent to Parade Square - exterior massing, appearance and colour only
- Stable Building (Quartermaster's Stores) - exterior façades and interior elements
- Brad House (Base Commander's Residence) - exterior façades only
- Ramshead House (Brigade Commander's Residence) - exterior façades only
- Officers' Mess - exterior façades, interior elements and formal garden
- Trasimeno Crescent between the Brad House, Ramshead House and Officers' Mess - form only
- Parade Square - form only

Alberta Community Development is considering additional designations at some level that may extend or complement the buildings and areas now designated as a Provincial Historic Resource. These include:

- Harvey Hall
- Athlone Building - interior elements;
- Trasimeno Crescent between Ramshead House and Quesnay Wood Drive - form only;
- the land immediately surrounding each component of the Provincial Historic Resource.

Owners of **Registered Historic Resources** are also required by the Historical Resources Act to notify Alberta Community Development of any work proposed to be undertaken on a registered property. No work can legally proceed on a Registered Historic Resource until 90 days have elapsed from the date of the owner's written notification to Alberta Community Development. The City of Calgary will not release a permit affecting a Registered Historic Resource until 90 days have elapsed from the date of the applicant's written notice to Alberta Community Development. The 90 day period allows the Province to initiate the process to designate the site as a Provincial Historic Resource, should a proposed action negatively impact the Registered Historic Resource.

2.16.2 An Overview of the Historically Significant Sites

Parade Square is considered a special area of the CFB lands. Because it is the most visible part of the Base to "civilians". For many Calgarians it is the Base. It also holds particular meaning for military personnel. For them, it is linked with ceremony and special occasions. Every private knows you do not set foot on the square unless you are on parade. The cenotaph located on the Square is also important, and must be saluted by passing military personnel.

The Square's setting, with the mature trees, bordering road layout, and large setbacks between it and the adjacent buildings define the area visually and symbolically. The form of the Square is

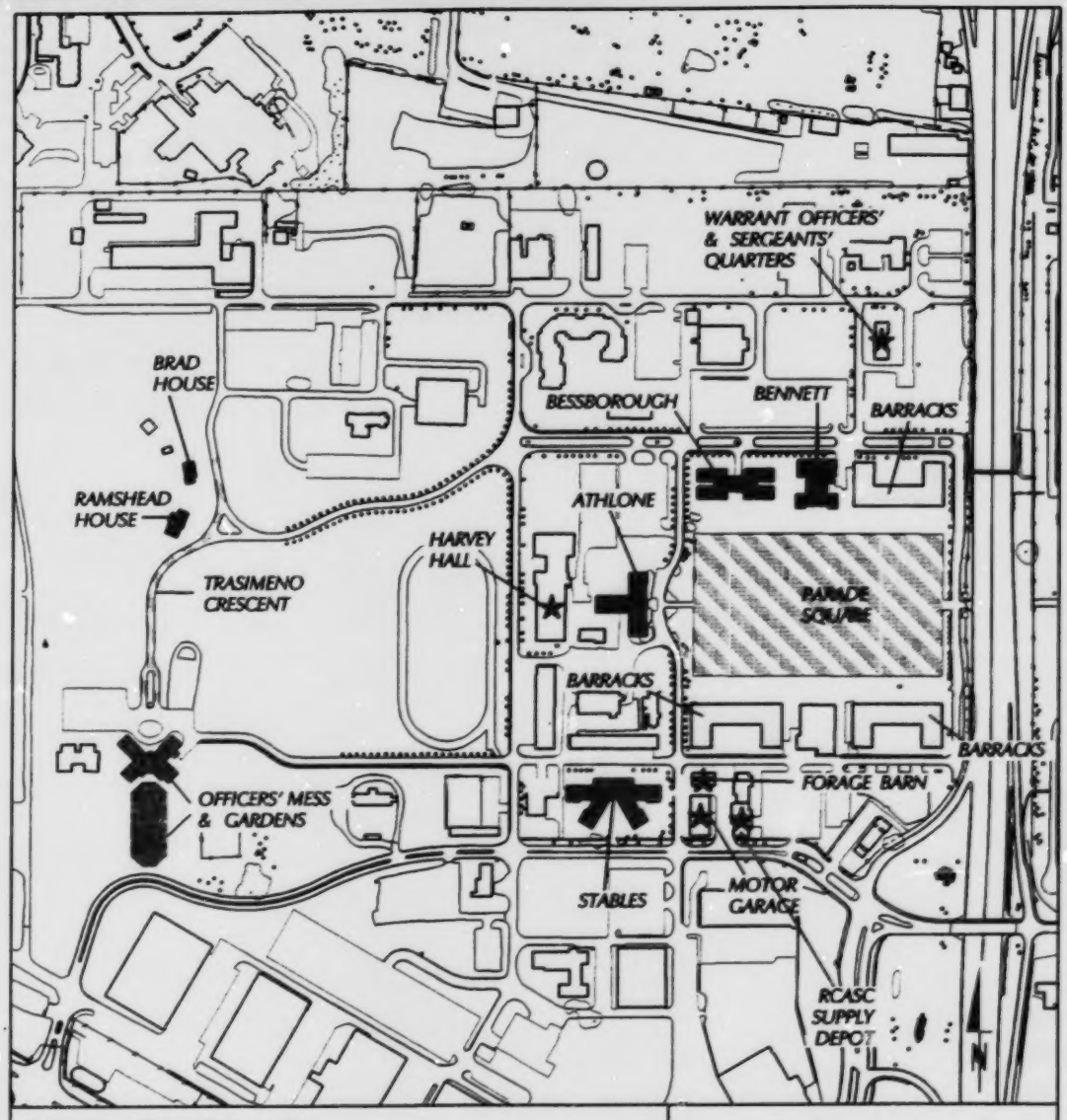


Fig. 16

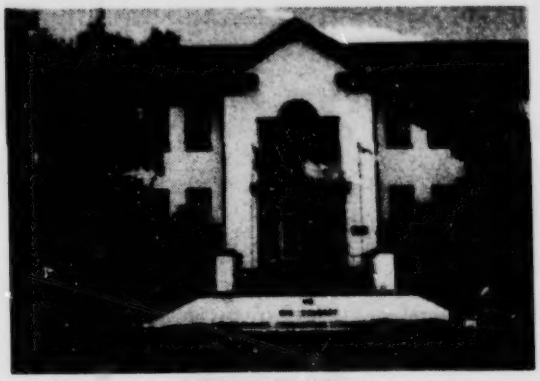
HERITAGE RESOURCES

designated as part of the Provincial Historic Resource. The precinct was completed in the 1950s with the addition of the barracks buildings on the southern edge, which serve to "enclose" Parade Square on three sides. The large ceremonial space and the surrounding buildings and landscaping combine to make this a significant site. This is an area where the buildings and their surroundings are more important together than they would be on their own.

Parade Square and Surrounding buildings

Three of the buildings surrounding Parade Square are historically significant: the **Athlone Building** on its western edge, and the **Bessborough** and **Bennett Buildings** on the northern perimeter. All of these buildings were completed in 1936. The style of these buildings is simple and symmetrical, but they have interesting details and classic lines. The exterior façades of each of these structures are therefore protected by the Provincial Historic Resource designation.

The Athlone Building served as offices for the Base Commander and his staff. Its prominent location at the west end of the Parade Square makes it a Calgary landmark. It was named for the Earl of Athlone, Governor-General of Canada from 1940 to 1946.



Athlone Building

The Bennett Building was the Men's Mess and recreation building, and has also served as offices, band studios and the military museum. It was named for R. B. Bennett, Prime Minister of Canada at the time of the base construction.

Bennett Building

The Bessborough Building served as the original barracks for the Lord Strathcona's Horse (Royal Canadians). It was used as barracks until 1970-71 when it was converted to an administration support building. The building is named for the Earl of Bessborough, Canada's Governor-General from 1931 to 1935.

Bessborough Building

The other buildings around the Square, although more recent, are significant because they help to define and lend significance to Parade Square. Therefore, their exterior massing, appearance, and colour must be repeated in any structures that would replace them in the future.

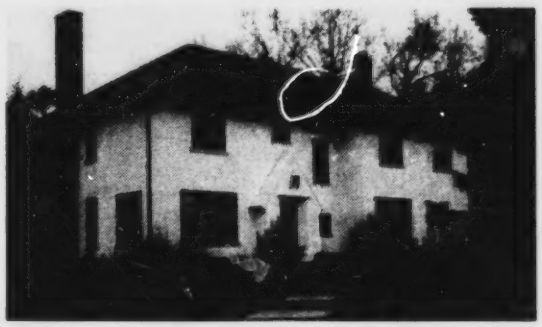
The **stables** are a reminder of the role that horses played, and were expected to continue to play, in the military. The building was completed in 1936, and could accommodate 25 horses in each of its four wings. During World War II, Lord Strathcona's Horse (Royal Canadians) were transferred east, and the building was not used as a stable after about 1940. The stables were converted to living quarters during the War, and were remodelled again to be used as offices and the Quartermaster's and Technical Stores. Its exterior façade and interior elements are designated as part of the Provincial Historic Resource.

Stables

The Officers' Precinct includes the **Officers' Mess** and residences for the Base and Brigade Commanders. This is another situation where the buildings, their surroundings, and even the roads linking them, combine to increase the significance of the site. The Officers' Mess and its setting are significant features of the former CFB lands. The tree-lined access road and the garden immediately south of the building provide a formal setting. The building was completed in 1936, and includes an entrance foyer and two dining halls. Its upstairs suites have hosted visiting generals, dignitaries, celebrities, and royalty, including Her Majesty Queen Elizabeth II. The gardens are original, and feature symmetrical walkways, a gazebo, plantings and mature trees. The Provincial Historic Resource designation includes the exterior façade, interior elements, and the formal garden.

Officers ' Mess

Ramshead House and its setting within the Officers' precinct combine to create one of the special places in the area. The house itself, completed in 1936, is in the English Cottage style. The access road is curving and tree-lined, and the original landscaping features spacious side and rear yards, mature trees and a summerhouse. The house was the official residence of the Brigade Commander. The exterior façade is protected by the Provincial Historic Resource designation.



Ramshead House

Brad House is another component of the Officers' precinct. It served as the residence of the Base Commander, and also features a formal tree-lined front access road and a yard with large setbacks and mature trees. The Brad House echoes some of the design elements of Ramshead House. The Province has designated its exterior façade as a historic resource.

Brad House

Trasimeno Crescent is the tree-lined roadway linking the components of the Officers' precinct. The form of this roadway between the Officers' Mess and Brad House has been designated as part of the Provincial Historic Resource. The portion between Ramshead House and Quesnay Wood Drive is under consideration for additional designation.

Trasimeno Crescent

Harvey Hall, located to the west of the Parade Square buildings, was constructed in 1941. In the original plans for the base, this building was intended to be an indoor riding ring for the cavalry. By the time it was built, there was no longer a cavalry regiment on the base, and the building was used instead for physical training. The gymnasium on the ground floor was used as a training hall, and the building also included a firing range, bowling lanes and squash courts in the basement. The bowling lanes were later converted to weight rooms and storage. In 1976, a swimming pool was added to the north end of the building. The Province is considering designation of this building as a historic resource.

Harvey Hall

The **forage barn**, located east of the stables, was originally built in 1936 to store hay for the mounts of the Lord Strathcona's Horse (Royal Canadians). Its construction attracted the attention of the newspapers of the day because the concrete walls and roof were poured in one operation. This method of construction, and the concrete floor, walls and roof made the building fireproof, an important consideration for a building full of hay. It was later used for supply depot storage.

Forage Barn

Built in 1936, the **motor transport garage** originally included a small filling station, an office, and a workshop. Over the years it has also stored weapons and ammunition, and served as the Quartermaster's Stores. The Military Police Platoon used it for vehicle maintenance, equipment storage, and offices. The building was completed at the same time as the stables -- an indication that the mechanized army of the twentieth century was slow to displace the tradition of the horse in western military planning.

Motor Transport Garage

2.17 Environmental Issues

2.17.1 Site Contamination

An Environment Baseline Study was completed in 1993 for CFB Calgary. This report examined the compliance of CFB Calgary's activities to applicable legislation and regulations. An Environmental Site Assessment was completed in 1995 and detailed all the contaminated areas within the base property, excluding Harvey Barracks. Due to the base closure announcement, a Comprehensive Study was completed in 1996. The Comprehensive Study, undertaken in accordance with the Canadian Environmental Assessment Act, examined the impact of base closure activities on the environment[2].

The study identified several contaminated sites. The sources of contamination included POL (petrol, oil, lubricants) and a variety of chemical agents that may have been improperly disposed of or that leaked during storage. There are also potential hazards associated with the demolition of structures that were constructed using asbestos. In addition, there are abandoned utility lines left in the ground. Most of the sites have been cleared and no further remediation is required, while other sites are still being monitored and are subject to in situ natural remediation. The CFB West Master Plan will ensure that the sites are remediated as appropriate for the intended use.

Environmental assessments of the ATCO Industrial Park site (Phase I and Phase II Environmental Site Assessments) do not show any problems affecting

[2]UMA Engineering, 1996 CFB Calgary Environmental Comprehensive Study of Base Closure Activities, prepared for the Department of National Defence

future redevelopment of the site. An assessment of the City yards (Phase II ESA) showed the presence of salt, caused by the salt storage for City crews. A Phase III investigation delineated the extent of the salt contamination and options for remediation and risk management are now being investigated.

A Phase I site assessment has been carried out for the Lincoln Park PMQ site. The only possible site of contamination is a previous fill area at the west end of the PMQ land.

2.18 Interim Uses

Calgary City Council approved land use designations to permit interim use of the former CFB lands. The interim period covers the time required for the planning process and for new development to begin.

The film industry is a major tenant during the interim period, using hangars, offices and other buildings to accommodate sound stages, storage, administration and various other support services. The Alberta Film Commission stresses the importance of having access to this variety of spaces. The ability to occupy existing suitable spaces for many facets of the film production process is important to the industry. Without the CFB location, the funding and time required to construct new facilities and buildings would jeopardize the current momentum achieved in the Calgary area. The Alberta Film Commission feels that the CFB location offers advantages for film producers, by permitting a "one-stop" approach to film production, with many facilities and services sharing the location, and by providing the ability to negotiate with different groups occupying the same building. The site's location also provides good access to downtown Calgary, the surrounding countryside and the airport.

Two schools occupy buildings on and near Parade Square on an interim basis. One is private, and the other is a public charter school. A company leases space to provide accommodation for students at various Calgary post-secondary institutions.

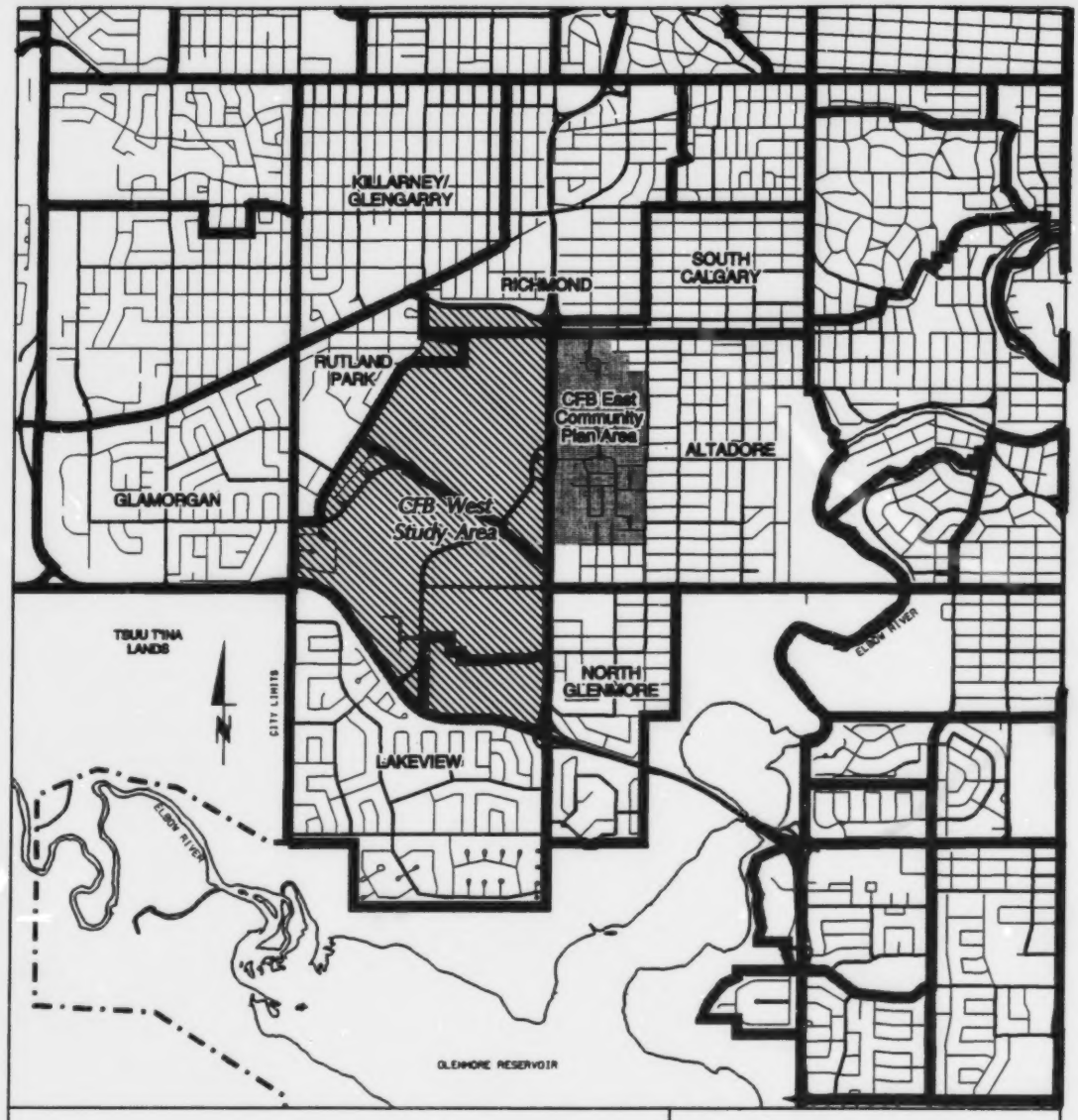


Fig. 17

CFB WEST AND ADJACENT COMMUNITIES

3.0 Surrounding Communities

The Plan Preparation Process

As the previous section illustrated, the CFB West study area is a large and complex site. Its size and complexity make it tempting to focus on the lands within the study area boundaries. However, it would not be possible to prepare a Master Plan without taking into account the surrounding communities. New development within the CFB West study area must connect to the adjacent land uses, and therefore the site cannot be viewed in isolation.

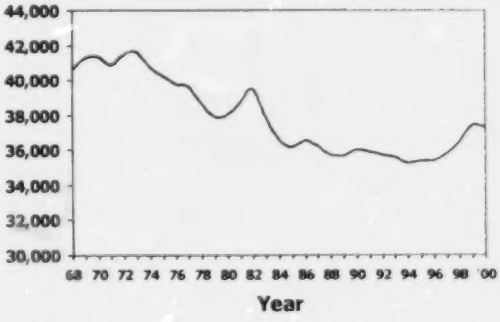
In fact, the closure of the Base and the potential for new development provide an opportunity to reverse the isolated way this area has operated in the past. The Currie Barracks site had few physical connections to the surrounding neighbourhoods. It did not often open its doors to Calgarians. Its focus was mostly inward. Even Mount Royal College has not typically been integrated with its immediate surroundings, in part because of the physical design of the building and the site, and in part because it had been surrounded by CFB Calgary and parcels of vacant land. One of the goals of the Master Plan is to enhance and complement surrounding communities, by forging links between new development and the existing neighbourhoods.

Therefore, an understanding of the characteristics of the surrounding communities is important. The communities included in this analysis are: South Calgary, Altadore, North Glenmore Park, Lakeview, Rutland Park, Glamorgan, Killarney/Glengarry, and Richmond/Knob Hill.

3.1 Population History

Typically, communities grow to a peak population, and then begin a population decline, as children grow and move out, and the number of people per household decreases. Communities generally lose from 25% to 35% of their peak population during this period of decline. Some communities will experience a recovery of population as infill and redevelopment occurs. The communities surrounding CFB West generally follow this pattern. Glamorgan represents a variation on the pattern, because it experienced significant new development in the early 1980s, preventing it from suffering the same degree of population loss. Overall, the population of the combined surrounding communities shows a decrease of 15% between the highest and lowest population figures.

Figure 18
Surrounding Communities
Historical Population
1968 - 2000



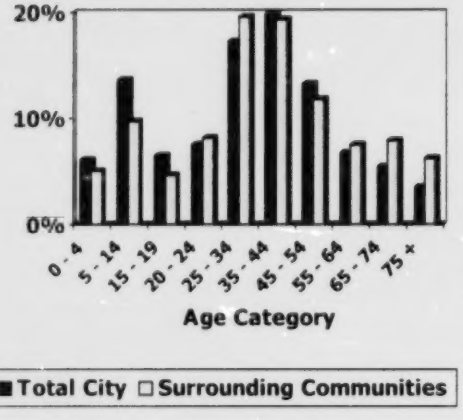
Source: City of Calgary Civic Census

3.2 Age Profiles

The communities surrounding the study area are characterized by fewer children and more seniors than the averages for the city of Calgary. Lakeview, North Glenmore Park and Rutland Park have a higher than average percentage of seniors aged 65 to 74 years, and Glamorgan and Rutland Park have higher than average percentages of seniors of 75 or more years.

Compared to the city average, Altadore, South Calgary, Killarney/Glengarry and Richmond/Knob Hill have a higher percentage of adults aged 25 to 34 years, and Lakeview, North Glenmore Park and Rutland Park have a lower percentage of adults in this age group.

Figure 19
Surrounding Communities
Population by Age



Source: City of Calgary Civic Census, 1999

3.3 Housing Trends

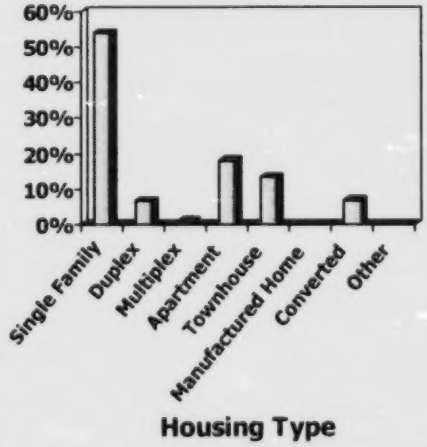
The surrounding communities have experienced a gradual increase in the number of housing units since 1968. About 5,900 homes have been added, for an increase of about 50%. The increased number of homes is largely due to the new construction of infill housing and multi-family developments, and to the addition of suites to existing homes.

3.4 Housing Types

Few of the surrounding communities follow the stereotypical homogeneous suburban form of development, where the community is dominated by single family homes. The general pattern for all surrounding communities combined is about 54% single family homes, with some apartments, townhouses, converted suites, and semi-detached homes. Lakeview and North Glenmore Park are the exceptions, with few housing forms other than single family. In Glamorgan and Killarney/ Glengarry, between 40% and 50% of all homes are single family. Glamorgan has significant multi-family development, while Killarney/Glengarry has some multi-family housing and a significant percentage of converted units.

In Rutland Park, single family homes are the second most common housing type. Townhouses account for over 51% of homes in that community.

Figure 20
Surrounding Communities
Housing Types
as a % of Total



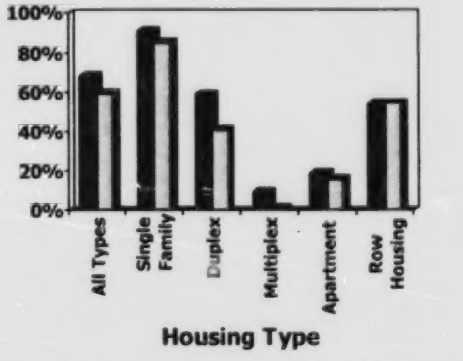
Source: City of Calgary Civic Census, 2000

3.5 Home Ownership

In the surrounding communities when combined, about 59% of homes are owner-occupied. This compares to a figure of about 68% in the city overall. The communities therefore typically have a larger proportion of rented homes than the city average. The exceptions are Lakeview and North Glenmore Park, where over 80% of homes are owner-occupied, and Rutland Park and South Calgary, where between 40% and 50% are owner-occupied.

Although single family homes are more likely to be owner-occupied than other housing types, about 15% of these are rented.

Figure 21
Surrounding Communities
Home Ownership
as a % of Total Occupied Dwellings



Source: City of Calgary Civic Census, 2000

3.6 Household Size

The number of people per household has declined in the surrounding communities, following a general trend to smaller families and more households with one or two people. Over the last three decades, the number of occupants per household has decreased from a high of 3.5 to the current level of 2.2. Household size appears to have stabilized at this level in recent years.

2000 Civic Census figures also show that 70% of households in the communities surrounding the planning area have only one or two people. This compares to about 57% for the city overall. About 27% of all households in the city have four or more people, while only 15% of dwellings in the communities surrounding CFB West have that many occupants.

3.7 Redevelopment Potential

The surrounding communities, which are considered established suburbs, either on the edge of or within the inner city, have reached the point in their life-cycles where redevelopment is underway. In some of these neighbourhoods, there is significant potential for new development. This potential exists because lands that have already been designated for multi-family forms of housing continue to be occupied by single family homes. While this situation may persist for many years, the potential exists to redevelop without requiring any change in land use designation. If supported by market conditions and the choices of residents, redevelopment could theoretically result in doubling the number of dwelling units in South Calgary and Killarney/Glengarry.

3.8 Social Characteristics

The communities surrounding the CFB West study area tend to be typical Calgary communities. They are close to the city average in many social and economic characteristics. People in these

communities are predominantly English-speaking, with religious and ethnic affiliations that match the profile of the city as a whole. Most are Canadian-born. Those who did immigrate to Canada came primarily from Europe, especially the United Kingdom, and immigrated prior to 1961. The majority of households had not moved in the year prior to the 1996 federal census, nor in the five-year period between 1991 and 1996.

Residents of these communities show similar patterns of education and employment to those for the city as a whole.

The median household income for the city of Calgary was $45,777. The median household income among the surrounding communities ranged from $26,724 in South Calgary to $61,842 in Lakeview. The proportion of households with incomes lower than Statistics Canada's low income cut-off levels generally matches the city pattern. The proportion is somewhat higher in South Calgary, and lower in Lakeview.

South Calgary also has a higher percentage of lone parent families than the city average.

Several of the surrounding communities have a higher than average percentage of households with seniors living alone. These communities include Killarney/Glengarry, Richmond, Rutland Park, and South Calgary.

In the city, households in 38% of homes occupied by tenants and in 17% of homes occupied by owners spend more than 30% of their household income on shelter. The surrounding communities generally follow this pattern, except that only 23% of tenant-occupied homes in Rutland Park spend more than this threshold. The percentage of owner-occupied households spending more than 30% of their income on shelter is either close to the average or lower than the average.

3.9 General Land Use

Land uses in the surrounding communities are largely residential. Most of the residential areas are designated for single family or semi-detached dwellings, with some areas of higher density, multi-family development (See Figure 22). Each of the communities has pockets of local commercial land use, parks, schools and churches to serve the community. (See Section 3.11 for more information on community facilities.)

In addition to these, there are some regionally significant uses, including the Museum of the Regiments and the Centennial Arenas in Altadore along Crowchild Trail, and the Marda Loop Business Revitalization Zone along 33 Avenue, east of Crowchild Trail. This area offers a wide range of businesses, including retail, restaurants, offices, and services. The Marda Loop BRZ is very active and is currently engaged in an ongoing program of promotion and beautification of the area.

The Tsuu T'ina lands, located south of Glenmore Trail and west of 37 Street, are also potentially significant to the future of the area. Formerly, the Department of National Defence leased a portion of these lands for Harvey Barracks. This land has been returned to the Tsuu T'ina Nation, and is outside the City of Calgary's jurisdiction. The Nation's future decisions on land use in this area could have impacts on CFB West and the surrounding communities.

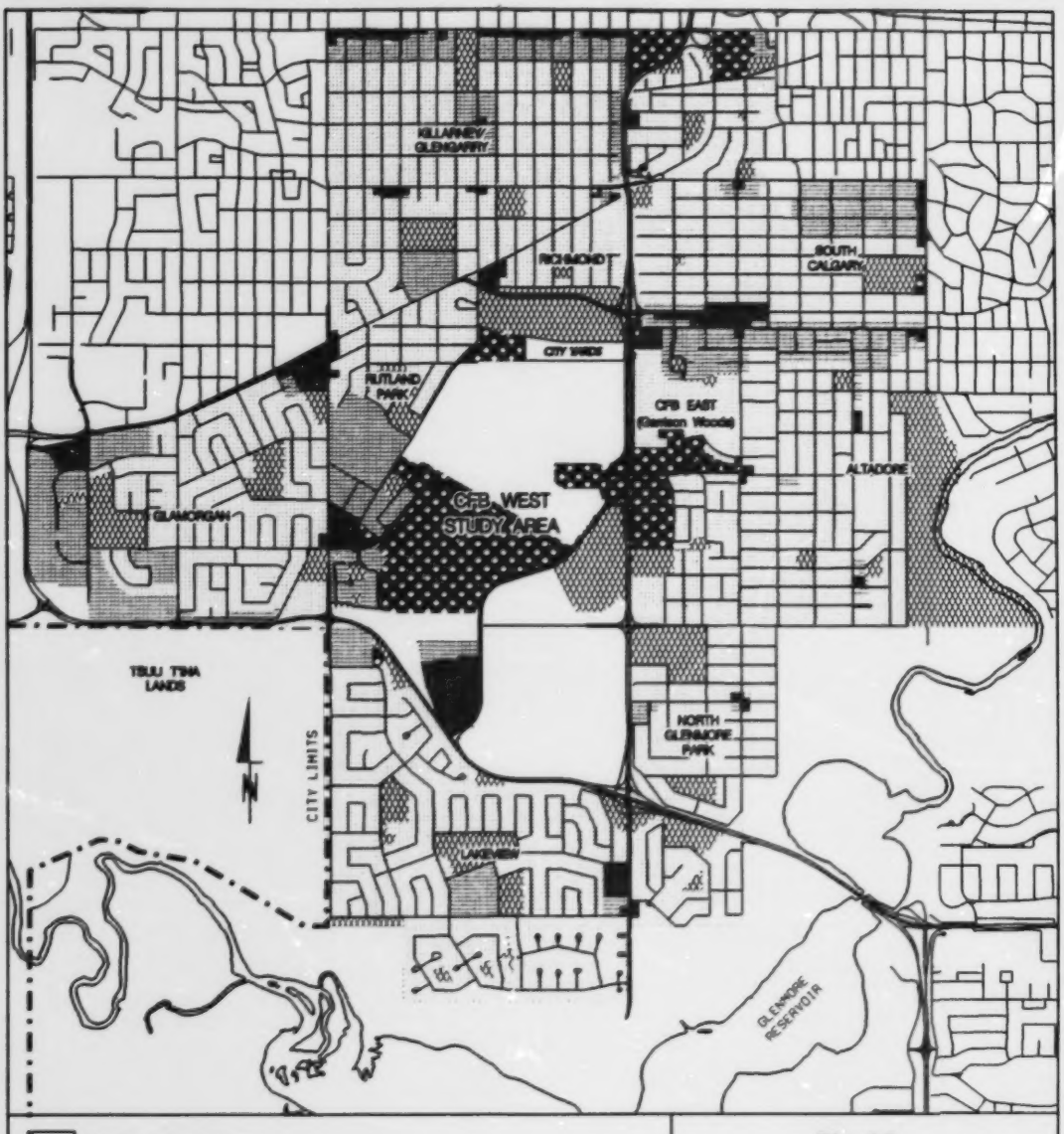


Fig.22

GENERALIZED (EXISTING) LAND USES IN COMMUNITIES SURROUNDING CFB WEST

3.10 Community Services

3.10.1 Police Service

The planning area will be serviced from the existing Police District #2 office, located at 1720 45 Street SW.

3.10.2 Fire Protection

Fire Station No. 20 is located within the CFB West study area, at 3110 Sinai Street SW, adjacent to the Lincoln Park PMQ area.

3.10.3 Emergency Medical Services

Emergency Medical Services are located at Fire Station No. 20.

3.10.4 Library Service

The closest library to the planning area is the Alexander Calhoun Branch, located in South Calgary at 3130 16 Street SW. Another branch library is located in the Signal Hill area, at 5994 Signal Hill Centre SW.

3.10.5 Social Services

Municipal Social Service will be provided from the Bowmont Area Office, located at 5000 Bowness Road NW. Provincial Social Services (Child Welfare Services) will be provided from the Willow Park office located at #200, 10325 Bonaventure Drive SE. Other Provincial services (Support for Independence) will be provided from the Kensington Road Office located at 1240 Kensington Road NW.

3.10.6 Public Health Services

The Scarboro District Office, located in the Alberta Children's Hospital at 1820 Richmond Road SW, will provide public health service.

3.11 Community Facilities

The communities surrounding the CFB West plan area contain a variety of both local and regional facilities that help to enrich the quality of life for the residents. Figures 23 and 24 identify the location of facilities within the surrounding communities, including the community association halls, schools and major facilities. These facilities are also identified in Tables 4, 5 and 6.

3.11.1 General

There are a number of major recreational facilities in the area. Many of these facilities are multi-purpose, providing swimming, golf, track and field, baseball, curling, soccer, tennis, gyms, day cares, pathways, rinks, meeting rooms, theatres and libraries.

The schools in the area provide a multitude of services to surrounding residents. These include education, special events, playgrounds, playing fields, extracurricular programs, social service programs and continuing education.

All of the adjacent community associations are very active and provide a wide variety of programs and services to their residents including day cares, mom and tot groups, fitness, crafts, seniors programs, special events, Block Watch and many others. In addition, many successful partnerships and alliances have been formed between schools, churches, community associations and local residents.

3.11.2 Calgary Board of Education

The Calgary Board of Education advises that sufficient space exists in the public schools in the surrounding area to accommodate public students residing in the CFB West area.

The Calgary Board of Education currently uses schools in the adjacent communities to accommodate elementary and junior high school students residing in the housing units currently being rented in the Lincoln Park PMQ area. The accommodation of elementary and junior high school students from the new development within the study area over the long-term is subject to yearly review. Central Memorial High School is the designated high school and French immersion high school for the area. Chinook Park School provides elementary French instruction, and Bishop Pinkham provides a junior high French immersion program.

The Board has recently developed a framework for assessing communities' future school needs. At this time, existing schools in the immediately surrounding neighbourhoods are not affected by this process. Schools in the communities of Glenbrook and Glendale will be reviewed within the next two years. Schools in these communities will be affected by future construction of new schools in Signal Hill or Richmond Hill.

3.11.3 Calgary Roman Catholic Separate School District

The Catholic School District advises that suitable student accommodation for future Catholic residents of the area is available in adjacent communities. High school students may attend either St. Mary's High School or Bishop Carroll High School. Elementary and junior high French immersion programs are provided at Holy Name Elementary School and Madeleine d'Houet Junior High School. A full kindergarten to Grade 12 Francophone school program is offered at Ste. Marguerite Bourgeoys, located within the study area. Operation of this school will be transferred to a separate Catholic francophone school board.

Over the longer term, as redevelopment occurs and potential enrolments increase, the Catholic School District will be looking to utilize one or both of St. Leo school in Lakeview and St. Raymond School in Altadore.

Table 4 Major Community Facilities

Name	Location
• Richmond Green Golf Course	• 2539 33 Avenue SW
• Glenmore Pool	• 5330 19 Street SW
• Glenmore Athletic Park & Velodrome	• 5330 19 Street SW
• North Glenmore Park	• Access via 37 Street SW
• River Park	• Access via 14A Street SW
• Sandy Beach and natural area	• East of 14 Street SW and 50 Avenue SW
• South Calgary Outdoor Pool	• 3130 16 Street SW
• Alexander Calhoun Library	• 3223 14 Street SW
• Calgary Centennial Arenas	• 2390 47 Avenue SW
• Garrison Curling Club	• 2300 Flanders Avenue SW
• Museum of the Regiments	• 4520 Crowchild Trail SW
• Mount Royal College	• 4825 Richard Road SW
• Alberta Children's Hospital	• 1820 Richmond Road SW

Table 5 Community Association Locations

Name	Location
• Glamorgan Community Association	• 4207 41 Avenue SW
• Killarney/Glengarry Community Association	• 2828 28 Street SW
• Lakeview Community Association	• 6110 34 Street SW
• North Glenmore Park Community Association	• 2231 Longridge Drive SW
• Richmond/Knob Hill Community Association	• 2433 40 Avenue SW
• Rutland Park Community Association	• 3130 40 Avenue SW
• South Calgary/Altadore Community Association	• 3130 16 Street SW
• La Cite des Rocheuses	• 4820 Richard Rd SW

Table 6 Schools

Elementary Schools	
Name	**Location**
• St. James Elementary/Junior High	• 2227 58 Avenue SW
• Chinnook Park Elementary	• 1312 75 Avenue SW
• Jennie Elliot Elementary	• 3031 Lindsay Drive SW
• Clem Gardner Elementary	• 5915 Lewis Drive SW
• Master's Academy	• 4414 Crowchild Trail SW
• Altadore Elementary	• 4506 16 Street SW
• Sir James Lougheed	• 3519 36 Avenue SW
• Glamorgan Elementary	• 50 Grafton Drive SW
• Richmond Elementary	• 2701 22 Street SW
• Ecole Holy Name French Immersion Elementary	• 3011 35 Street SW
• Killarney Elementary	• 3008 33 Street SW
• Knob Hill Elementary	• 2036 20 Avenue SW
• King Edward Elementary/Junior High	• 1720 30 Avenue SW
Junior High Schools	
Name	**Location**
• A.E. Cross	• 3445 37 Street SW
• Bishop Pinkham (French Immersion)	• 3304 63 Avenue SW
Senior High Schools	
Name	**Location**
• Lord Shawnessy High	• 2336 53 Avenue SW
• Central Memorial Alternative High	• 5111 21 Street SW
• Alternative High	• 5003 20 Street SW
• Bishop Carroll High	• 4624 Richard Road SW
Other	
Name	**Location**
• Dr. Oakley School	• 3904 20 Street SW
• Calgary French School	• 6304 Larkspur Way SW
• Emily Follensbee School	• 5139 14 Street SW
• Viscount Bennett School	• 2519 Richmond Road SW
• Ste. Marguerite Bourgeoys	• 4800 Richard road SW
• Lycee Louis Pasteur	• 4099 Garrison Boulevard SW

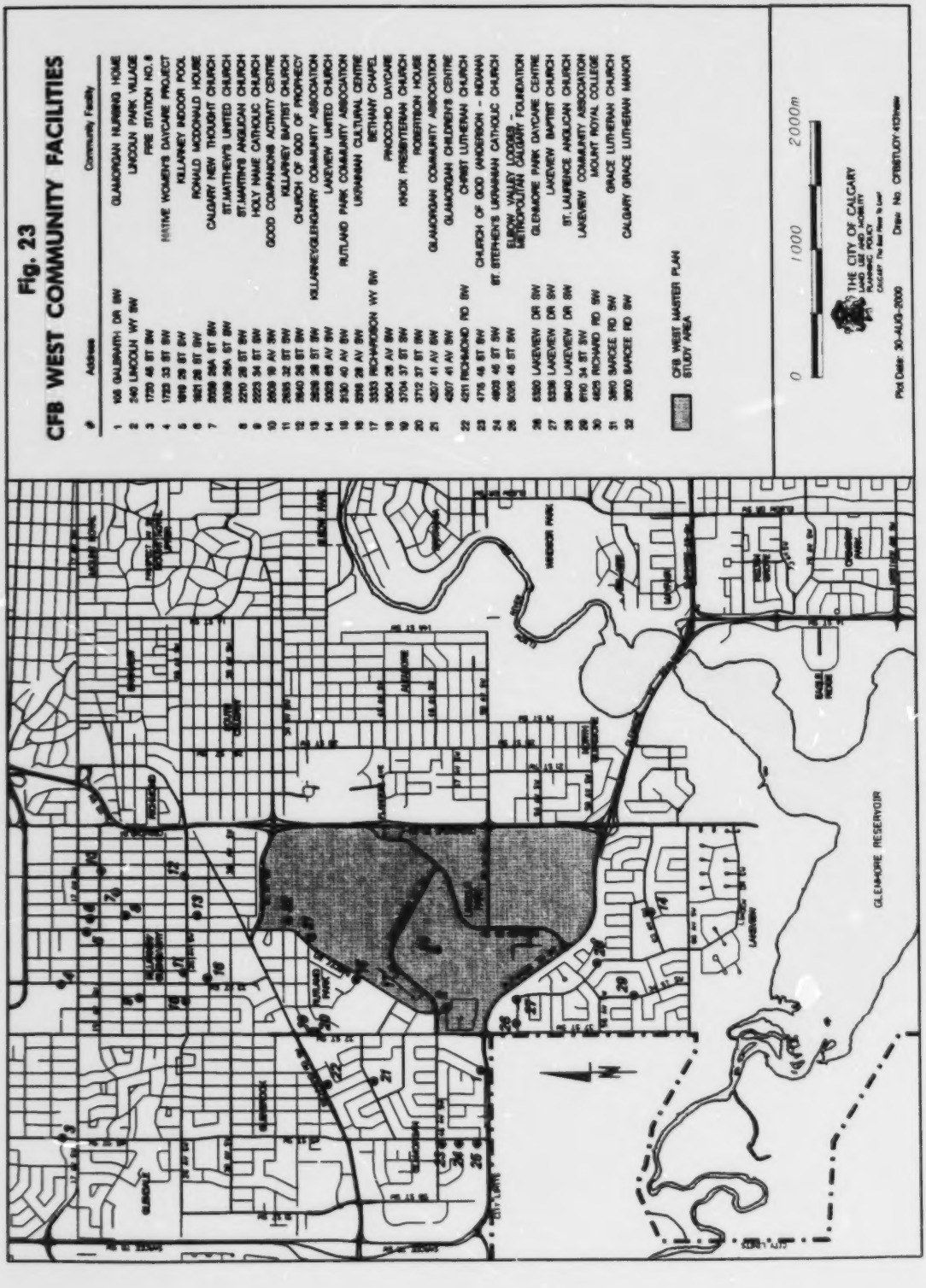


Fig. 23
CFB WEST COMMUNITY FACILITIES
Address Community Facility
1 105 GALBRAITH DR SW GLAMORGAN NURSING HOME
2 240 LINCOLN WY SW LINCOLN PARK VILLAGE
3 1720 46 ST SW FIRE STATION NO.8
4 1723 33 ST SW NATIVE WOMEN'S DAYCARE PROJECT
5 1919 29 ST SW KILLARNEY INDOOR POOL
6 1921 28 ST SW RONALD MCDONALD HOUSE
7 2039 29A ST SW CALGARY NEW THOUGHT CHURCH
2039 29A ST SW ST.MATTHEW'S UNITED CHURCH
8 2210 26 ST SW ST.MARTIN'S ANGLICAN CHURCH
9 2223 34 ST SW HOLY NAME CATHOLIC CHURCH
10 2503 19 AV SW GOOD COMPANIONS ACTIVITY CENTRE
11 2535 32 ST SW KILLARNEY BAPTIST CHURCH
12 2540 26 ST SW CHURCH OF GOD OF PROPHECY
13 2658 28 ST SW KILLARNEY/GLENGARRY COMMUNITY ASSOCIATION
14 3323 65 AV SW LAKEVIEW UNITED CHURCH
15 3330 40 AV SW RUTLAND PARK COMMUNITY ASSOCIATION
16 3356 26 AV SW UKRAINIAN CULTURAL CENTRE
17 3333 RICHARDSON WY SW BETHANY CHAPEL
18 3604 26 AV SW PINOCCHIO DAYCARE
19 3704 37 ST SW KNOX PRESBYTERIAN CHURCH
20 3712 37 ST SW ROBERTSON HOUSE
21 4207 41 AV SW GLAMORGAN COMMUNITY ASSOCIATION
4207 41 AV SW GLAMORGAN CHILDREN'S CENTRE
22 4311 RICHMOND RD SW CHRIST LUTHERAN CHURCH
23 4715 46 ST SW CHURCH OF GOD (ANDERSON - INDIANA)
24 4900 45 ST SW ST. STEPHEN'S UKRAINIAN CATHOLIC CHURCH
25 5005 45 ST SW ELBOW VALLEY LODGE
METROPOLITAN CALGARY FOUNDATION
26 5360 LAKEVIEW DR SW GLENMORE PARK DAYCARE CENTRE
27 5336 LAKEVIEW DR SW LAKEVIEW BAPTIST CHURCH
28 5940 LAKEVIEW DR SW ST. LAURENCE ANGLICAN CHURCH
29 610 34 ST SW LAKEVIEW COMMUNITY ASSOCIATION
30 4625 RICHARD RD SW MOUNT ROYAL COLLEGE
31 3910 SARCEE RD SW GRACE LUTHERAN CHURCH
32 3800 SARCEE RD SW CALGARY GRACE LUTHERAN MANOR
CFB WEST MASTER PLAN STUDY AREA
0 1000 2000m
THE CITY OF CALGARY
LAND USE POLICY
Plot Date: 30-AUG-2000 Drgn: No CFBSTUDY 4Chelsea
GLENMORE RESERVOIR

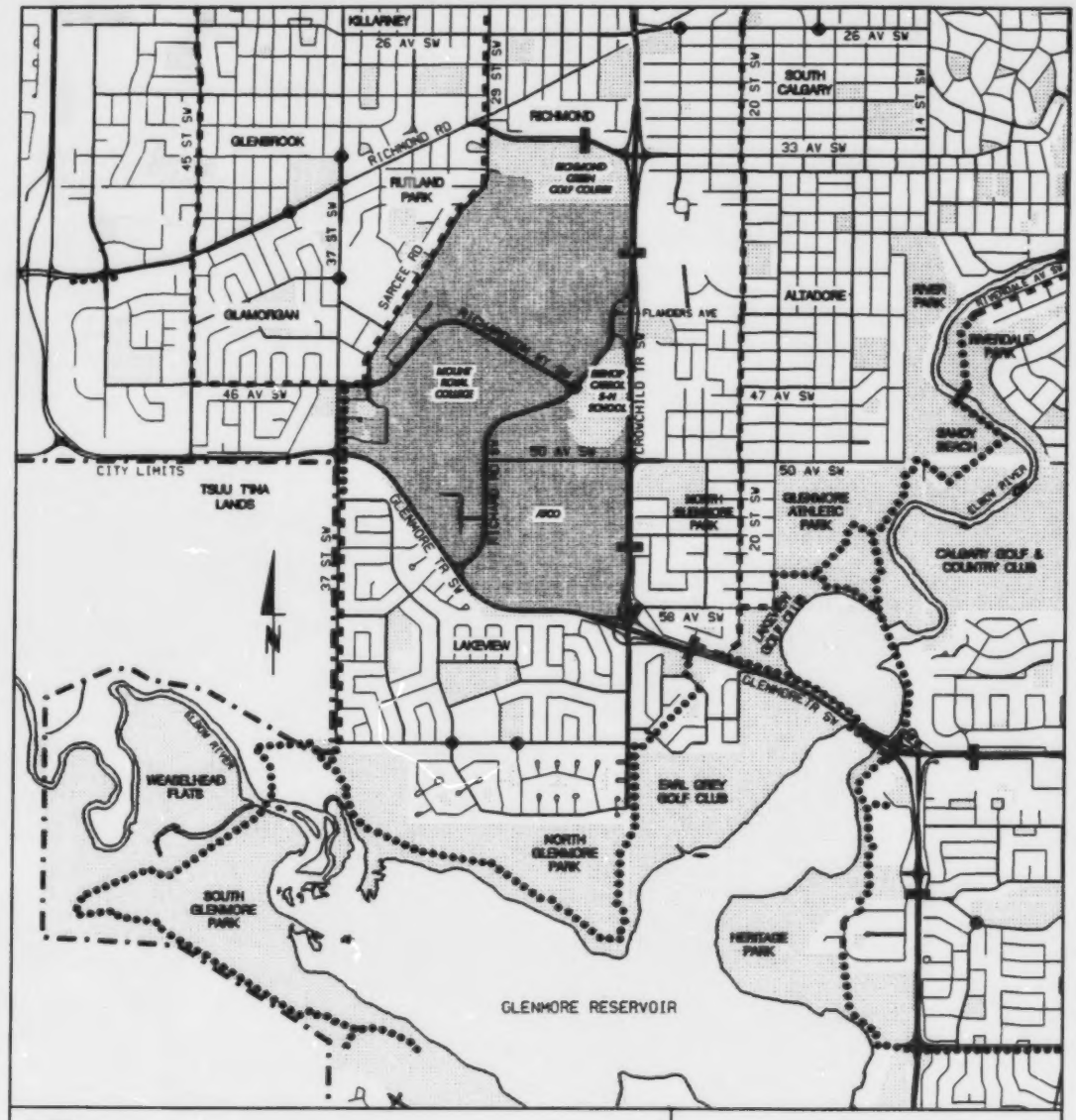
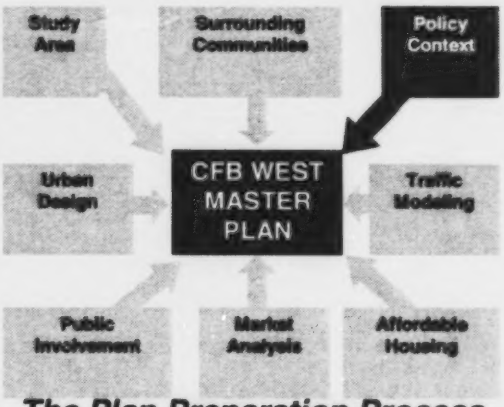


Fig.24

PATHWAYS, BIKEWAYS & OPEN SPACE DISTRIBUTION

4.0 Policy Context



The Plan Preparation Process

The Master Plan for CFB West will govern the future development of the area, within the context of policies contained in other documents. These documents include the Calgary Plan, the Calgary Transportation Plan, and the Sustainable Suburbs Study. This citywide, strategic context will influence decisions made for the future of CFB West.

4.1 The Calgary Plan, 1998

The Calgary Plan provides the strategic, citywide framework for more detailed plans and policies, such as the Master Plan for CFB West. The Master Plan must incorporate the Calgary Plan's overall objectives.

One of the cornerstones of the City's strategy for managing growth in Calgary is to integrate the overall pattern of land use and the design of the transportation system. Among other goals, this integration will:

- increase mobility options for Calgarians;
- reduce the reliance on the automobile; and
- increase transit use.

Some of the steps needed to make this happen are:

- locate new jobs closer to where people live and provide opportunities for housing development to locate closer to where jobs are;
- concentrate employment in "centres" that provide a mix of complementary land uses and attract enough people to support transit service;
- encourage more people to live in existing neighbourhoods, in housing that is compatible with the surrounding area;
- increase population densities and the range of housing choices provided in new neighbourhoods;
- design new neighbourhoods so that public systems and the mix of land use are transit-supportive; and
- design public space systems that are pedestrian-friendly for all neighbourhoods and downtown.

CFB West represents a chance to provide more opportunities for employment-generating businesses to locate on the west side of Calgary, and to do so in a comprehensively designed centre providing a mix of uses.

This area could also provide a range of housing options in an existing neighbourhood relatively close to downtown.

4.2 The Calgary Transportation Plan, 1995

The Calgary Transportation Plan (CTP) provides a vision of Calgary in the year 2024 when the city's

population was expected to reach 1.25 million. Since the CTP was approved in 1995, growth has accelerated. At current rates the city's population could reach 1.25 million around 2018. In addition, the CTP, prepared prior to the Base closure, did not anticipate any significant changes to the CFB lands. However, the growth strategy and the principles as approved in the CTP are applicable in reviewing the development options of CFB West lands. Some of these principles have been incorporated into the Calgary Plan, as discussed above. In addition to those, the CTP encourages non-retail job opportunities to locate in the northwest, west and southwest sectors of the city.

4.3 The Sustainable Suburbs Study, 1995

The intent of the Sustainable Suburbs Study is to foster a high quality of life in all neighbourhoods, and to promote sustainable communities. The study promotes:

- a more compact urban form with better utilization of services and infrastructure;
- a strong sense of belonging to a community;
- a wide choice of housing types;
- attractive public spaces for socializing and recreation;
- daily shopping needs to be met within the community;
- some mix of uses including employment;
- more efficient use of land;
- transit use and reduction of the need for the automobile;
- clean air through reduced vehicle trips;
- community design that encourages conservation and lifestyles where consumption and waste can be minimized; and
- protection of significant environmentally sensitive areas by integrating them into the regional open space system.

4.4 Lincoln Park Special Planning Study, 1992

This study provides land use recommendations based on three different options for the future development of the 50 Avenue right-of-way. The three different roadway options examined in the study included a freeway, a major roadway, or a discontinuous road through Lincoln Park. As a result of City Council's approval of the Calgary Transportation Plan, the freeway option was discarded.

The Lincoln Park Special Planning Study was undertaken prior to the Base closure, with the assumption that CFB Calgary would remain operational. It recommended that a review of the study be considered if the Department of National Defence made any decision that would affect the status of CFB Calgary.

4.5 Inner City Transportation Study

The Inner City Transportation Study (ICTS) was initiated by City Council following its approval of the Calgary Transportation Plan in 1995. Work on the study started in September 1996 and it was approved by Council in 2000 July. It will result in a road network and transit service plan for the inner city that will implement many objectives of the Calgary Transportation Plan.

Although CFB West lies just outside the inner city, the ICTS will provide an important context for the

traffic studies associated with the CFB West Master Plan.

4.6 Employment Centres Strategy, 1999

In 1998, City Council directed Administration to prepare an implementation strategy to attract and accommodate jobs outside the downtown and the industrial areas in northeast and southeast Calgary. This was a response to growing evidence that efforts to provide for the location of future jobs closer to residential growth and transit facilities, as envisaged in the Calgary Plan and the Calgary Transportation Plan, have met with only limited success.

The Employment Centres Strategy was approved by City Council in 1999. It identifies CFB West as a potential location for an "employment area" outside the downtown and in the city's southwest sector, where other opportunities to create employment centres have already been lost to short-term market demands for other land uses.

An "employment centre" is an area accommodating a substantial number of jobs and which also provides goods and services needed by workers and nearby residents. An "employment area" is one of three types of employment centres identified in the Strategy. The other two are "major suburban centres" and "secondary centres". Compared with these centres, employment areas are expected to:

- accommodate more land-extensive business activity such as business/office parks or substantial office with clean manufacturing;
- have a more limited range of other uses (e.g., residential and retail); and
- be less oriented to LRT, although adequate bus service should be provided.

The Strategy makes the case for the City's taking a pro-active role in promoting, expediting and maintaining long-term options for developing non-downtown employment centres.

4.7 Transit Friendly Design Guide, 1995

The Transit Friendly Design Guide, approved by City Council in 1995, describes techniques for improved integration of transit into residential and non-residential areas to achieve the vision described in the Calgary Transportation Plan. It explains and gives examples of the physical requirements necessary to encourage transit use.

The Guide established eight principles to support transit:

- Provide appropriate community densities.
- Minimize walking distances.
- Provide mixed land uses.
- Organize density, land use and buildings to benefit from transit.
- Create a pedestrian-friendly environment.
- Route transit into the community.
- Reduce transit travel time.
- Build quality, user-friendly transit facilities.

4.8 The City of Calgary Environmental Policy, Principles and Goals, 1994

The Environmental Policy, Principles and Goals, was adopted by City Council in 1994 and acts as a

guide to ensure that environmental stewardship and performance is implemented and maintained by staff. It is the City's intent to demonstrate leadership in matters impacting the environment and ensure that "environmental considerations are part of all City of Calgary decisions respecting planning, growth, development and operations". There are specific policies describing the commitment to improving air quality, stewardship of water resources, using effective waste management and responsible land use. In the planning and approval processes for which the City has direct responsibility, there are opportunities to accomplish these objectives by making every decision in a way that is more respectful of the environment.

5.0 Urban Design Principles

The Plan Preparation Process

This section reviews the major principles of urban design in order to identify those factors that could contribute to creating an image and experience for CFB West. These principles are adapted from an urban design handbook prepared by the City of Calgary.

Urban design is not just a matter of aesthetics. It is also concerned with the functioning of the environment and the social and economic well-being of those who use it. The quality of our surroundings, where people live, work and play, affects how people feel about their communities, their perceived safety, and how convenient and accessible different facilities are. Well-conceived urban design creates a sense of place and supports meaning, interest and identity in a city. A poor urban environment is a serious barrier to investment and economic development.

New development, both residential and non-residential occurring within CFB West will have a considerable impact on the community's image and the quality of the environment. Therefore, urban design should be integrated from the start or opportunities could be lost.

5.1 An Introduction to Urban Design

5.1.1 Roots of Urban Design

Although civilizations have been designing cities for approximately 7,000 years (e.g., Çatal Huyuk, Jerico, and Mohenjo Darro) the roots of urban design as it is currently practiced can be traced to three influential books all written in the 1960s. These were:

- Jane Jacob's *Death and Life of Great American Cities*,
- Kevin Lynch's *Image of the City*
- Gordon Cullen and Ian Nairns' *Townscape* (originally Architectural Review issues entitled "Counter Attack" and "Outrage against Subtopia").

Jacobs drew attention to the importance of safety, short blocks, mixed activities, high-density living, and incremental growth. Lynch examined the meaning and memorability of places and how they created images and formed mental maps to make a city comprehendible (i.e., legible). Cullen and Nairns' work concentrated on the importance of the physical and sensory components of urban spaces (referred to as "streetscapes").

In 1985, Bentley, Alcock, Currain, McGlynn, and Smith combined the thinking of these books into a more comprehensive approach in their book *Responsive Environments:a Manual for Designers*, and more recently John Montgomery's article *Making a City: Urbanity, Vitality, and Urban Design*, explored the process of creating a "sense

of place". This section draws on the work of these authors.

5.1.2 Urban Design Policies

Traditionally, most urban design guidelines address only streetscape issues and the design details of building façades prevalent in an area. Appropriate activities and the social and economic conditions required to support them are rarely considered. These urban design policies are generally prepared after land-use, zoning, transportation, and open-space decisions have been made, which suggests that they are viewed as mere adjuncts to policy statements and two-dimensional land-use maps.

It is becoming increasingly clear, in cities throughout the Western World, that this deferment of three-dimensional considerations has resulted in the creation of some spectacularly disappointing environments.

To avoid such failures it is necessary to consider the economic, behavioural, and three-dimensional aspects of design right from the outset of the process. Urban design should be the engine of the planning process rather than the caboose.

5.1.3 Definition

Urban design may be defined as:

The spatial arrangement of a city's built elements to create a public realm which is safe, vital, humane and adaptable to a variety of civil behaviours. Thus it is concerned not only with the creation of memorable public spaces, but also with the behaviours which occur there over time. Urban design links individual acts of construction into a coherent whole; it creates a city's form and image.

Urban design is both a process and a product. It is the process by which planners establish the character of a city, or area of a city, and it is the sense of integrity, *place*, and rightness, that is created when that process is successful.

Urban design is different in scale and objective from architecture, which is mainly concerned with the character of individual buildings. It is also different in scale and objective from planning, which is mainly concerned with the future uses of land and peoples' needs and resources on a regional scale.

5.1.4 Urban Design and Uniqueness

One's experiences and impressions of a city may be significantly affected by the quality of its urban design. Peoples' memories of cities are encoded in the brain and include positive and negative feelings about their experiences as well as the street layout, the location of landmarks, the scale and density of buildings, and types of peoples and their activities.

Since geographic conditions vary from city to city, one way to achieve unique form and ambience is for the design to respond to local topography, climate, etc. This inevitably creates a city with a unique form and ambience.

5.1.5 Primary Determinants of Urban Form

Most of a city's individual buildings are replaced or modified over time, but certain elements are retained for hundreds or even thousands of years without significant alteration. These elements,

which strongly influence and sustain the city's quintessential character, include:

- natural features
- open spaces
- high density areas
- major access paths.

They may therefore be characterized as the skeleton or urban structure upon which the city is formed, and should be the core concern of any urban design plan.

Natural Features include topography, climate, water, and forests. Thus, in the past, the form and character of cities sited adjacent to large bodies of water was generated by the location of the harbour.

Open Spaces such as dedicated city parks or plazas are rarely built-upon and often attract expensive high-density developments around their perimeter. Thus the political power of property owners bordering New York's Central Park, allied with high public usage, virtually guarantees that it will never be built upon and therefore will continue to be a major component of the City's image.

High Density Nodes of activity and buildings normally persist over time because they represent a strong and varied base of vested interests. These areas of high activity also contribute to a city's memorability and unique identity. This is particularly true in downtown areas where their symbolic role persuades many citizens to support public investments to maintain or restore their vitality.

Primary Access Corridors including roads, rail, and rivers also attract major property investments. The values of these investments make them prohibitively expensive to reroute and usually ensure their longevity as major contributors to the image of the City.

5.1.6 The Basis for an Urban Design Plan

Natural features, open spaces, and high-density nodes of activity are, in most cities, the *places* that we remember after we leave. If these three elements are aggregated under one general category of "*places*" it can be argued that the long-term character of a city is mainly determined by urban design decisions affecting its skeletal network of "places" and "pathways".

Studies by American planner Kevin Lynch confirm that *places* and *pathways* affect the legibility and memorability of a city. Thus cities which organize these elements into a strong, recognizable pattern can accommodate significant changes of individual buildings without losing their defining form and character. The organization and design of major places and pathways should therefore form the structural base of any city plan.

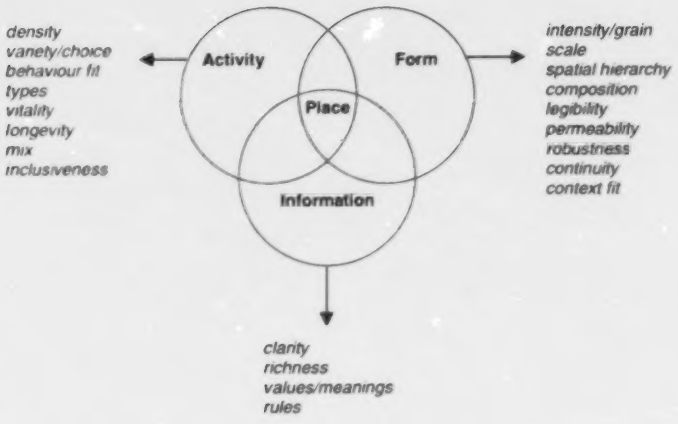
5.2 Place-making - A Model

Places, in the sense that they are used here, (i.e., spaces with a memorable atmosphere) comprise three elements:

- their physical form
- the activities they contain
- the information they transmit.

The synergistic interaction of these three elements

Figure 25
A Place-Making Model



creates a special ambience, or genius loci, which people recognize but have difficulty defining and analysing. The model above (Figure 25) explains the contribution of each of the elements and its subcategories.

5.2.1 Physical Form

Urban places and pathways are by definition enclosed spaces. Without enclosure they would not be defined as recognizable entities and there would be "no there, there". Many of the following aspects of the surrounding physical enclosure, and the relationships between adjacent spaces, can affect the quality and character of urban design:

• Intensity/grain

Intensity or grain refers to the size of the building blocks which make up the three dimensional mass of an area. Thus an area in which each city block contains only one or two large buildings is referred to as coarse-grained; but an area where each city block contains many small buildings is referred to as fine grained.

Intensity or grain can also relate to the amount of articulation of the building facades surrounding the plazas or streets. Heavily articulated forms carry a considerable amount of information and help to create an atmosphere of busyness and animation. Plain forms carry a minimum of information and help to create an ambience of stasis and restfulness.

• Scale

Well articulated small to medium sized buildings help to create a human scale in which people feel comfortable, whereas spaces enclosed by large, monumentally scaled buildings evoke feelings of subservience and awe. Designers should employ the appropriate scale for the ambience that they are trying to create. Thus a shopping street needs to be animated and interesting but the forecourt of a church, cemetery, or courthouse should be dignified.

• Spatial hierarchy

Establishing a hierarchy of memorable buildings, places, and streets, allows the brain to form a mental

map of an area, which makes it easy to remember, recall, and travel through. In pre-automobile cities this hierarchy was a natural outcome of designing to suit functional requirements. Thus cathedrals and civic buildings were entered through generous forecourts that emphasized their importance and accommodated large gatherings, and the widest streets gave access to such important places.

With the advent of the car this natural hierarchy became skewed because highways became the widest streets in the cities even though, in terms of land-use or pedestrian activities, they were often not the most important corridors.

• Composition

Façades of surrounding buildings normally form the walls that enclose memorable places. The manner in which these, often individually owned, structures relate to one another, i.e., are composed, may significantly affect the aesthetic response to the place.

Composition includes all of the aesthetic principles which architects and designers normally employ in their creative endeavours, and which have been shown, through the passage of time, to be effective. These include the principles of harmony, unity, variety, balance (symmetrical/asymmetrical), rhyme, rhythm, appropriateness, context, etc.

• Legibility

The legibility of a place refers to the degree to which it can be understood and remembered. Legibility involves the organization of the urban fabric through the use of landmarks, activity nodes etc, to achieve what designers call "variety within unity". One is able to move around legible areas without feeling lost, an emotion that is psychologically disturbing.

• Permeability

This component refers to the physical and perceptual accessibility of a place. The degree to which a place is physically accessible obviously determines the type and intensity of uses that can occur there. The courtyard of a private club will undoubtedly be less permeable than a public plaza or park.

Although a place may not be physically accessible to all, it may allow the public to see into it. The beautifully landscaped courtyard of a private club or house may, under such circumstances, still act as a memorable landmark and be an important element of the urban design of the place.

Buildings whose internal activities and major functions can be easily perceived foster an understanding of an area, which increases its legibility and allows participants to identify with the place.

• Robustness

Long-lived buildings or places are said to be robust when they continue to fit their function through societal change, or when they are adaptable to changing circumstances or needs.

• Continuity

Places that maintain their attraction over long periods of time, gain an historical significance that increases their memorability. A connection to the past also appears to have psychological benefits that are difficult to quantify.

• Context fit

Another quality of place that is difficult to quantify is the fit between buildings, or groups of buildings, with their context or site.

5.2.2 Activities

Humans are social animals. It is not therefore surprising that the places and pathways that are quoted as exemplars of urban design are filled with people and their activities. Elaborately designed plazas that are rarely or never inhabited are by definition unpopular and therefore not memorable. Conversely, many popular places and pathways, although exhibiting some aspects of form summarized above (such as human scale), boast no award-winning buildings as part of their enclosure. People, not buildings, create vitality and ambience or sense of place, and the following aspects of activities affect the quality of that place.

• Density

The density of activities occurring in a place plays a significant role in its ability to attract people and ultimately on it memorability. As the studies of William H. Whyte have shown "people attract more people".

• Variety/Choice

The variety of activities in a place affect not only its ability to attract large numbers of people, but also its ability to attract a wide selection of different life-style groups. The heterogeneity of the attracted population creates a cosmopolitan ambience that differentiates it from other areas of the city. Interesting behavioural exchanges occur at the interface between different life-style groups, and places where these occur are favourite haunts for people watching.

• Behaviour fit

The fit between the kinds of activity in a place and the uses contained within its enclosing elements can play an important role in its success. Thus frequent, very noisy, celebrations in a plaza bordered by residential units can be a recipe for conflict and ultimately failure.

Similarly a plaza which is too large for the numbers of potential users, will never be filled and thus will appear unpopular and lifeless.

• Types of Activity

The types of activity in a place can have a significant effect on its ambience. Thus a memorial plaza such as the Cenotaph has a completely different atmosphere from the same sized space used as a market square.

• Vitality

Most memorable urban places are animated and vital throughout each day and evening. Such places normally include various functions including shops, restaurants, and entertainment facilities, and are largely dependent upon the presence of a sizable population of residents which includes several different life-style groups.

• Longevity

The period of time over which activities stretch during the day is an extremely critical aspect of place. Spaces where activities are spasmodic are rarely seen as vital and memorable. Thus indoor

shopping centres, although filled with people during opening hours, are not quoted as exemplars of urban design partly because most close in the evenings. Popular places are active throughout the day and evening. Different life-style groups often populate them at different times of the day. They can normally be relied upon to provide people-watching opportunities and the chance of serendipitous experiences at every new visit.

• Mix

The heterogeneous population that frequents vital memorable places attracts a wide mix of activities. The combination of these factors creates an urban stage where people go, not only for shopping, dining, and entertainment, but to see and be seen. Unexpected and unplanned events and chance meetings distinguish such places from the chain-store boutiques and paid entertainers of gentrified plazas. In the former, pedestrians expect the unusual and unscripted; in the latter, pedestrians know the programme in advance.

• Inclusiveness

Vital places are inclusive. Unlike indoor shopping malls where subconsciously perceived cues specify the type of preferred clients, places have loose rules of order which announce that a wide range of life-style groups are welcome.

5.2.3 Information

The third aspect of places is the information that they transmit. This is of two types: consciously perceived and processed, and subconsciously perceived and processed. The former includes instrumental information, such as the names of streets or buildings, road signs, etc. The latter kind of information is the unwritten cues about the types of people or activities that may be found there. For example, bars on windows, graffiti on walls, and dirty uncared-for streets may signal an unsafe environment. Some of the following aspects of information may affect the analysis of place.

• Clarity

The clarity of both types of messages can affect the perception of a space. Confusing or badly sited signs can lead to frustration, and mixed cues about a neighbourhood can lead to confusion.

• Richness

The richness of cues may make a significant contribution to the atmosphere of a place. Thus ethnic neighbourhoods with foreign language signs, symbols, smells, and architectural styles may make a place seem exotic and experientially enriching.

• Values/meanings

The values transmitted by environmental cues may also affect a response to a place. Thus the large proportions of the space in front of St. Peter's Cathedral, in Rome, and the formal colonnade that surrounds it, give notice of its importance and suggests the size of crowds that may on occasion be expected there. Similarly, inward-looking shopping centres and parks suggest an escape from the city rather than a celebration of its cosmopolitan nature.

• Rules

Many designers seem unaware of the messages that their designs transmit. Thus the blank wall of a

gymnasium or theatre may be logically derived from their inside functions but its windowless façade, seen from the sidewalk, may be interpreted as a response to vandals and a sign of an unsafe neighbourhood.

Environmental cues inform us of the appropriate rules of behaviour. In urban design it is particularly important, for example, that people can easily perceive which spaces are public and which are private.

5.3 Application to CFB West

The model outlined above argues that memorable places are organized around an urban structure of special places linked by major pathways. Therefore, one of the first steps in applying the model to CFB West was to identify the special places that exist there (e.g., Parade Square, Officers' Mess) and the areas with the potential to become places (e.g., Ridge Park, Main Street). The next step was to identify major linking pathways and reinforce, modify and create them as necessary (e.g., Trasimeno Crescent).

This structure forms part of the foundation for the policies of the Master Plan. Urban design principles have been focused on creating an environment that supports walking, cycling and using transit, and that promotes safety and security. Specifically, the urban design approach guides the treatment of different components of the planning area, including:

- built form and its compatibility with the context;
- special places;
- open spaces;
- streets and pathways;
- views and landmarks;
- historical and military elements; and
- edges between different activities.

6.0 Traffic Modeling

The Plan Preparation Process

6.1 Introduction

Road networks have a profound influence on the design of North American cities and the communities within them. Many cities, including Calgary, quickly adopted a grid system of roadways as they began to develop. With the arrival of streetcars and the private automobile, roadway design and construction standards adapted to accommodate heavier volumes of traffic with different needs. The grid layout allowed for a variety of convenient routes for vehicles, as well as for pedestrians and cyclists. Bus routes could be designed to travel directly through communities, without the need to back-track or loop through a neighbourhood.

Post-war prosperity meant that many more households owned cars, and were able to afford single family homes on larger lots in the suburbs. Over time, new roadway models were adopted, creating a hierarchy of streets. Small local roads funneled traffic onto collector roads, which in turn funneled traffic to major roads and expressways. Major roads were "over-built" to accommodate future traffic levels, and often one major road would be designed to serve an entire community. The choice of routes therefore became limited to perhaps only one access point into a community. Buses either did not enter a community at all initially, collecting passengers only on the perimeter, or had to enter and exit a community at the same point, creating longer, less direct, and therefore less attractive routes. Further, new suburbs are often developed along existing expressways, which have standards for the minimum distances required between intersections. This also serves to limit the access points into a community.

This basic model continues to be used for suburban development today. While it is often convenient for traffic, this model often makes transit, walking and cycling much less convenient. Car ownership becomes essential. Land is used inefficiently, and reliance on the car contributes to pollution and energy consumption.

Recently, there has been a shift away from this model, driven by a desire to create more "sustainable" communities. More sustainable communities would adopt at least a modified grid pattern, and encourage transit, walking and cycling. Rather than funnel all traffic onto only one major road, the road network would again provide a number of route choices. This remains the way most Calgary inner city communities function. It is also the way many of the communities in the area surrounding the CFB West planning area have been designed.

Many choices, therefore, need to be made in the design of a sustainable road network for the future development of the planning area. These choices

are made within the context of the City of Calgary's strategic goals, as well as the goals established for the master plan. One of the tools used to test possible road network designs is traffic modeling.

6.2 Traffic Modeling

Traffic models are computer simulations that project traffic volumes, based on assumptions about the number of residents and employees within a given area. For the CFB West planning area, two main land use options were used to produce these assumptions. Because the models are tools that help to refine road network and land use concepts, they were run before final decisions were made about the land uses in the area. The land use options modeled are therefore general, and do not include the refinements and changes they helped to generate.

The first of the two land use options assumed lower density residential development in the planning area, including the Lincoln Park PMQs area, yielding an overall density of about nine units per acre. The second option assumed that the Lincoln Park PMQ area would be redeveloped as a business park, and assumed a higher density of residential development on other lands, yielding an overall density of about 15 units per acre. The densities chosen for modeling purposes may not be the exact densities proposed in the Master Plan: they are selected as reasonable estimates of the range of densities that could occur. The high end of the range represents a maximum level that would not likely be achieved, but is chosen to test the limits of the modeled networks.

The models test these two land use options using various roadway networks for the forecast land uses in the year 2018. These also included some testing of the future traffic volumes without any redevelopment in CFB West, along with the two land use options in the planning area. The models therefore include not only the traffic expected to be generated by CFB West, but also the traffic generated elsewhere that will be using the roads in this area in the future.

The traffic models tested the following road configurations, with different permutations of the following possible components:

- upgrading the Flanders Avenue structure to four lanes;
- a new access road through Currie Barracks to an upgraded access on 33 Avenue;
- a new access road through Currie Barracks to an upgraded access on Sarcee Road;
- an access road from a limited cell of residential development to Sarcee Road;
- an extension of 50 Avenue to the west, to connect with 37 Street;
- a connection between Flanders Avenue and Richardson Way; and
- an interchange at Richard Road and Glenmore Trail providing for turns in all directions, right turns only, or a right turn into the planning area and a left turn out.

Each component of the networks tested has implications for roads within and around the planning area. Some networks minimize vehicle traffic in some locations while creating problems elsewhere. The traffic models are used to help assess the impacts throughout the planning area and the surrounding road network, and indicate how they can be minimized overall. It is on the basis of this traffic forecast analysis that the preferred network

was chosen. The traffic modeling results for the preferred network are summarized in Figure 13 on page 28.

6.3 Comparison of Alternative Road Networks

The seven alternative road networks differ in their relative impact on the traffic volumes on roads within and around the planning area. The following summary compares the impacts on the surrounding roads.

6.3.1 Sarcee Road and 29 Street

Traffic volumes on Sarcee Road and 29 Street are sensitive to differences in the network chosen. Volumes will be higher on Sarcee Road if there is:

- no connection between Flanders Avenue and Richardson Way;
- unrestricted access to Sarcee Road from all of the former Currie Barracks area;
- no upgraded connection to 33 Avenue.

Although not shown on the traffic model results, it can be expected that the potential will be greater for short-cutting on residential streets west of Sarcee Road when there are higher volumes on Sarcee Road and 33 Avenue.

6.3.2 33 Avenue

Traffic volumes on 33 Avenue, both east and west of Crowchild Trail are generally in the same order of magnitude regardless of the network chosen. This is because regional traffic will displace most locally-generated traffic as long as capacity exists. Nevertheless, CFB West will contribute higher volumes to 33 Avenue if:

- there is no connection between Flanders Avenue and Richardson Way because, without this connection, more trips are forced onto perimeter roads instead of using internal roads;
- there is no upgrading of the Flanders Avenue interchange at Crowchild Trail;
- there are direct connections to upgraded accesses on Sarcee Road and/or on 33 Avenue.

6.3.3 Flanders Avenue

Traffic volumes on Flanders Avenue east of Crowchild Trail are highest when:

- the interchange is upgraded to increase the capacity of the existing bridge;
- there is a connection between Flanders Avenue and Richardson Way;
- there are no upgraded accesses to Sarcee Road and 33 Avenue.

6.3.4 50 Avenue

Traffic volumes on 50 Avenue east of Crowchild Trail are highest where there is:

- no connection between Flanders Avenue and Richardson Way;
- an extension of 50 Avenue west to Glenmore Trail.

6.3.5 Crowchild Trail (33 Avenue to Glenmore Trail)

Traffic volumes on Crowchild Trail are generally similar regardless of the network chosen. Volumes

between 50 Avenue and Glenmore Trail are lower where 50 Avenue is extended westwards to connect with Glenmore Trail.

6.3.6 Glenmore Trail (37 Street to Crowchild Trail)

Traffic volumes on Glenmore Trail are generally similar regardless of the network chosen. Volumes between Richard Road and 37 Street are lower where 50 Avenue is extended westwards to connect with Glenmore Trail and there is no or a partially upgraded access to Glenmore Trail at Richard Road.

6.3.7 46 Avenue

Traffic volumes on 46 Avenue west of 37 Street are higher where:

- the Flanders Avenue interchange is upgraded;
- there is a connection between Flanders Avenue and Richardson Way.

Volumes on 46 Avenue west of 37 Street are lower where 50 Avenue is extended westwards to connect with Glenmore Trail.

6.3.8 37 Street

Traffic volumes on 37 Street are generally similar regardless of the network chosen. Nevertheless volumes are higher where 50 Avenue is not extended westwards to connect with Glenmore Trail.

6.4 The Preferred Network

The results of the model testing along with careful consideration of the potential impacts of the options tested, led to the preferred road network. Starting from the main external access points and working inward to the internal road network, the preferred network has the following:

1. An improved interchange on Flanders Avenue at Crowchild Trail. The west ramps are refined to establish a more typical diamond interchange, the bridge structure is widened to provide four lanes across Crowchild Trail, and a southbound only connection is made on the west side to allow traffic to travel from Flanders Avenue to Richard Road.

2. A grade-separated interchange at 50 Avenue and Crowchild Trail. This interchange will allow Crowchild Trail traffic to flow freely under 50 Avenue. The east side ramps are typical diamond interchange ramps, while on the west side a loop ramp is provided in the northwest quadrant of the intersection to provide access onto southbound Crowchild Trail. Access to the land south of 50 Avenue is proposed to be opposite the west ramp intersection.

3. Access to Glenmore Trail will be provided at a grade-separated interchange at Richard Road. This all-turns "T"-interchange will provide good access for the south plan area and helps to reduce the potential impact on

the Glenmore Trail/Crowchild Trail interchange.

4. An interchange is required at the Glenmore Trail and 37 Street intersection, and one has been assumed in the preferred road network. This would be a diamond interchange.

5. A restricted access intersection and access road to 33 Avenue will be provided between Richmond Green Park and Richmond Green Golf Course. The intersection will only permit right turns and left turns into CFB West and right turns out. The proposed access road utilizes the existing golf course and public works road, except for the northerly 50 metres, where the new connection and intersection will be made. The new intersection will be west of the pedestrian overpass and eastbound bus bay, and will be located near the highest point along the 33 Avenue eastbound alignment. From this point, the visibility for all vehicles is excellent and is much better than the existing intersection with the access road to the golf course and City facilities, which is located at the lowest point along 33 Avenue.

6. Access to Sarcee Road will be mainly local roads serving the area west of the proposed Ridge Park. This helps reduce the traffic demand on Sarcee Road, but is dependent on an access to 33 Avenue.

All interchange and intersection designs to share the traffic load will be refined at the detailed design stage.

The internal road network follows the major roads that already exist in the plan area. This includes Richardson Way, Richard Road and 50 Avenue.

In the north area, Flanders Avenue is realigned northward to bring the road closer to Parade Square. It continues westward to a traffic circle located at the intersection with Quesnay Wood Drive. A very circuitous connection is provided between the traffic circle and Sarcee Road. Because it is circuitous and low speed, short-cutting traffic will be discouraged. However, the connection is important to ensure the development on the west side has access to the Parade Square and other developments on the east side.

A north-south spine road will also be provided to connect 33 Avenue to Richardson Way. Traffic calming devices will be designed into this road to ensure volumes and speeds are as low as possible. The section between the park and the golf course will be posted at 30 kilometres per hour and will be designed to encourage lower speeds. Traffic will have to pass around a "Garrison Square" type of park and traffic square. It will also pass through the traffic circle at Flanders Avenue and will connect with Richardson Way at a "T" intersection.

In the south area, a circuitous north-south road will connect 50 Avenue to Richard Road through the business park site north of 50 Avenue. This road is designed to provide access to the developments on this site, and not to encourage through traffic.

The CFB West Master Plan will recommend against extending 50 Avenue westward to Glenmore Trail near 37 Street. Instead, the Plan will recommend that 50 Avenue should only be extended westward to serve as an access point to serve the adjacent

land and Mount Royal College. The College also intends to reorganize the internal loop road system and building orientation in order to made 50 Avenue a focal point.

Two accesses are proposed from 50 Avenue to serve the proposed business park south of 50 Avenue. Two north-south roads will feed into the area, with east-west connections between them. The business park and residential area (the former Lincoln Park PMQs) will also have a shared access to Richard Road at Sinai Road.

7.0 Public Involvement

The Plan Preparation Process

From the beginning of the planning process for CFB Calgary, City Council recognized the important role the public would play. Council members directed the Plan Preparation Team to facilitate and encourage a broad-based citywide planning process. They also directed that the team work with a Citizens' Advisory Roundtable (CAR), with local and citywide representation, to be appointed by Council.

7.1 Citizens' Advisory Roundtable (CAR)

Council established the CAR to represent a diverse cross-section of interest groups and stakeholders, to generate a wide variety of ideas and concepts to be explored from both a citywide and a local viewpoint, to provide comments to the plan preparation team, and to assist the team in obtaining public input to the plan.

The composition of the CAR was designed to include representatives of local community interests and citywide interests, and up to two federal representatives. Council appointed the local representatives after a collaborative selection process involving City administration, the ward aldermen, adjacent communities and business organizations. Council appointed the citywide representatives on the advice of the CAR Chairperson, the public involvement consultant, and the City administration. The Inter-governmental Liaison Committee (ILC) determined the federal representation.

The CAR has met an average of once monthly since 1997 September to discuss the strategic goals of the Master Plan, to review land use proposals, to provide advice about involving the broader public, and to contribute to policy formulation. In addition, they have participated in special workshops at several key points in the process.

CAR members were also very involved in public events throughout the planning process. They attended open houses, answering questions from the general public. They participated in focus group sessions and design workshops alongside representatives of various interest groups and stakeholders. They hosted meetings with community associations in the surrounding area and opened the base lands to the general public through walking tours.

One of the CAR's particular areas of interest has been affordable housing. It is largely due to CAR's advice that this policy area has received special attention in the plan preparation process. Background information on the subject is summarized in Section 9.

7.2 Public Events

The Master Plan preparation process included many

public events. These were designed to provide information to the public as well as to encourage their participation in developing ideas for the study area.

September 1996 - Open House

This event sought public advice on the plan preparation strategy and on the issues that should be addressed in the plan. There was very strong support for preservation of historic buildings, and commemorating some legacy of the military presence in Calgary. There was also strong support for expansion of Mount Royal College, using some of the former CFB lands. The public was also very supportive of a mixture of different kinds of land uses in the study area, including residential, business and offices. There was also some support for a mixture of different types of housing. People attending the open house opposed creating another "typical" suburb, and were supportive of making the area special and unique.

City Council took the public's general support for the proposed planning process into account when they approved the process in October of 1996.

November 1997 - Open House

This event released the draft Community Plan for CFB East. It was also an early opportunity for the public to express their ideas for redevelopment of the lands west of Crowchild Trail. These include preservation and reuse of historic buildings, residences, seniors' residences, and film industry use. Concerns included traffic and density of development.

April 1998 - Focus Groups

Following the completion of the CFB East Community Plan, the Plan Preparation Team's efforts shifted to CFB West. Focus group sessions involved members of the CAR, on-site stakeholders and representatives of various interest groups and organizations. Participants identified opportunities and constraints for the study area from several perspectives:

- environment and green space;
- employment, industry and business;
- community services;
- heritage, arts and culture; and
- housing.

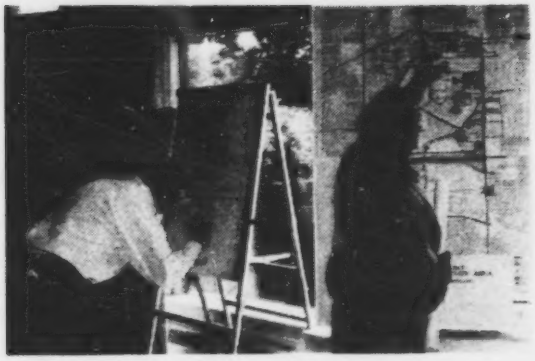
Focus Group

May 1998 - Design Workshop

The CAR members, the Plan Preparation Team, some of the focus group participants, and others participated in this event. The workshop produced a variety of general land use concepts for different areas within the study area.

June 1998 - Ideas Fair

The concepts produced at the design workshop, and others prepared by the CAR members and the Plan Preparation Team, were presented to the public. The general public provided their ideas for the study area, for specific sites, and for individual buildings. The Ideas Fair attracted more than 400 people. It also offered bus tours of the study area, or walking tours of the Currie Barracks area, including the historically significant buildings.



Ideas Fair

July to October 1998 - Walking Tours
Walking tours were held on Saturdays to allow the public to visit the base lands and some of the significant historic buildings. The tours gave people the chance to see the area, and to submit their own ideas for the future.

Walking Tours

January - March 1999 - Community Meetings
At this point in the process, the Plan Preparation Team and the CAR had generated some emerging ideas for the future development of CFB West. They held a series of meetings with each of the adjacent communities, the Marda Loop Business Revitalization Zone, the Federation of Calgary Communities, and the Inner City Coalition.

April 1999 - Directions and Choices Open House
Often the plan preparation process moves from gathering data and opinions to the draft plan stage, when a recommended plan is presented for public review. The open house at this stage, and the Discussion Paper on which it was based, were inserted as an additional phase of the planning process. The purpose of public involvement at this stage was to draw attention to issues and areas that need more discussion and analysis before a plan could be drafted. The responses it generated helped in the preparation of the draft Master Plan.

The emerging ideas presented at this stage were developed by the plan preparation team, their consultants, and the CAR, in consultation with stakeholders and based on the public input received to that point.

Much of the response at this stage focused on access roads to serve future residential development in the north of the study area. In particular, neighbouring communities reacted to the possibility of replacing the existing access road onto 33 Avenue, between Sarcee Road and Crowchild Trail. Other concerns included the density of development, and the amount of traffic that new development here would generate in surrounding areas. Concern for these transportation issues led members of the CAR and the plan preparation team to attend several follow-up meetings in the community, including a community forum sponsored by Channel 7 News.

At the April open house, members of the public expressed support for:

- film industry use of facilities;
- expansion of Mount Royal College;
- preserving the military legacy;

- open space and a linked pathway system;
- providing employment opportunities within the study area;
- continued residential use south of the ATCO site;
- relocation of the City engineering yards; and
- mixed-use areas surrounding Parade Square and on City-owned land north of 50 Avenue.

October 1999 - Meeting with Community Association Executives from Surrounding Communities

In October, a meeting was held with the community association executives from all the surrounding communities to outline the progress made on refining the directions and choices, and to hear their comments.

February 2000 - Parade Square Design Charrette

Members of the public and the CAR felt that Parade Square and its surrounding buildings would be critical to establishing the character of the new community. The design challenge was to take a space that was not at the physical centre of the community and create an active focal point, while preserving its cultural and historical significance. The design charrette process allowed an exploration of different ideas for achieving this goal. Invited guests included planners, designers, architects, and CAR members. The intensive workshop generated many ideas, which formed the basis for further work.

May and June 2000 - Meetings with Community Association Executives from Surrounding Communities and On-site Stakeholders

Following the release of the draft CFB West Master Plan which included the distribution of a summary to 25,000 households, Plan Preparation Team and CAR members met with representatives of the surrounding communities and with on-site stakeholders to discuss the draft.

June 2000 - Draft Master Plan Open House

The open house was held to present the draft Master Plan to the public, and to provide Calgarians with an opportunity to comment. Public input from this stage in the process helped to refine the draft Plan and prepare a Proposed Plan for presentation to the Calgary Planning Commission and City Council by year end.

7.3 Other Opportunities for Public Involvement

Throughout the process, the Plan Preparation Team provided several different ways to inform the public about the Plan progress, and to invite their comments and ideas. These included:

- newsletters at key points in the process, delivered to a mailing list that reached about 2,000 people, surrounding communities, and people living in the study area;
- newspaper advertising and media coverage of public events;
- submissions to community newsletters;
- a dedicated telephone information line, providing both updated information and a means for people to submit their comments and reach Plan Preparation Team members; and
- a web site that provided background information on the planning process and encouraged people to submit their comments electronically.

8.0 Market Analysis

The Plan Preparation Process

8.1 Residential Development

The following information is adapted from material provided to Canada Lands Company by the IBI Group.

The market analysis for residential development studied new single detached and semi-detached homes, infill housing, and multi-family housing. Forecasts were made under two cases. The first assumed that the CFB West planning area would capture a proportionate share of demand in the market area. This case yielded annual absorption rates of 38 infill units, 68 conventional single family units, and 84 multi-family units.

The second case assumed that the CFB West planning area would capture a larger than proportionate share of each market segment. Under this case, annual absorption rates would be 56 units of infill, 100 units of conventional single family and 125 units of multi-family housing.

8.2 Business Park Development

The following information is adapted from material provided by City of Calgary Corporate Properties Group.

The potential market for a business park in this location, using at least the City-owned site currently leased to ATCO, is of interest to help meet the City's strategic goals. In particular, the City is interested in finding opportunities to place employment areas closer to residential areas, to provide an alternative to traffic movements into the downtown core and from the west side of the city to the east.

For the purposes of its analysis, the City's market analysts studied not only the site currently occupied by ATCO, but also the lands to south, currently occupied by the Lincoln Park PMQs. They assumed that:

- 65% of employment growth is "housed" in either office or industrial buildings.
- The split between these two types of employment is about 36% office and 64% industrial.
- A floor/area ratio (FAR) of 0.4 is used to arrive at a net site use or absorption.
- ATCO will acquire 30.32 acres of their current site in 2001. General land sales and development of the remaining land will start in 2002.

The analysts also assumed that based on the positive response to this site from major developers in the city, the market share for new buildings absorbed on the site could be 4% of industrial buildings and 8% of office buildings over the development time frame. Factors influencing these figures include the reduced availability of industrial

land in the city, and increasing rental costs downtown.

The analysis concluded that the ATCO site would be fully sold within three years, assuming the sale of 30.32 acres to ATCO in 2001, and 12 acres to other uses in each of 2002, 2003 and 2004. The ATCO site and the PMQ site could be absorbed by 2010.

8.3 General Market Analysis

The following information is adapted from material provided to Canada Lands Company by the IBI Group.

8.3.1 Industrial

The IBI Group analysis concluded that the CFB West planning area lacks the road, rail and airport access required for industrial development, and is close to major residential development. Therefore, industrial use at this location is less attractive than uses that would generate a greater return.

8.3.2 Suburban Office

The IBI Group assumed that the suburban office market is independent of the downtown market, and therefore CFB West lands would compete only in the suburban market. They assumed that the types of businesses attracted to suburban locations include manufacturing, communications, construction, distribution, and high technology. Suburban locations are attractive to them because of lower operating costs and taxes, shorter commutes for employees, and inexpensive and plentiful parking.

The analysis tested two different growth scenarios and two different percentages of market capture. Both assume an FAR of 0.5. If the suburban market grows at an annual rate of 2% over the next 20 years, and if CFB West captures 5% of the overall suburban market, 0.6 acres of land for office uses could be absorbed each year. If CFB West captures 10% of the overall suburban market, 1.2 acres could be absorbed each year.

If the suburban market grows at an annual rate of 3%, 1.0 acre could be absorbed each year if CFB West captures 5% of the suburban office market, and 2.0 acres could be absorbed each year if it captures 10%.

8.3.3 Retail

The IBI Group concluded that, given the competitive environment and land-consumption requirements of regional retailing, regional shopping centres are not recommended for the CFB West planning area. Instead, up to 11 acres could be used for local and neighbourhood shopping.

8.3.4 Institutional

The IBI Group concluded that up to 30 acres could be used for places of worship, private schools, and health care.

8.4 Mount Royal College

The following is adapted from information provided by Mount Royal College.

Mount Royal College began developing a new institutional master plan in 1996 by taking a comprehensive review of the institution's vision, values and mandate. *Vision 2005*, adopted in

December 1997, calls for the College to transform from a comprehensive community college to a full-credential undergraduate college, providing certificates, diplomas and degrees. To achieve this vision, the College decided that it must address its facility requirements. Its preliminary studies show that the existing facilities cannot accommodate such significant new or expanded program activity.

In its analysis, Mount Royal College has assumed that student enrolment levels will continue to represent a relatively constant proportion of Calgary's growing population. According to this assumption, credit enrolment levels are expected to increase from the 1996/97 base level of 6,177 full-time equivalent students by 50% to the year 2015, and by 100% to the year 2025. This will translate into 9,265 and 12,354 full-time equivalent students.

The College continues to explore new methods of program delivery, public/private partnerships, off-site development for certain programs, optimum use of existing facilities, and alternative timetables. The College believes, however, that these measures alone will be insufficient to accommodate future requirements.

In addition to the College space requirements, additional student residences will also be necessary. Some of this need could be met by private developments in the adjacent residential communities. New forms of student housing may also be required to accommodate couples and families.

Mount Royal College also anticipates the need for new amenities on its site. These include playing fields, for use by both the College community and the public, an outdoor assembly space, an outdoor performance space, stormwater retention facilities, and pathways.

8.5 Film Production Industry

The following is adapted from material provided by the Alberta Film Commission.

While the following is not a technical market analysis, some discussion of the current and future economic contribution of the film production industry is useful to understanding this use.

8.5.1 Current Status

Although the film industry in Alberta has a long history, the increased level of production activity in the last few years has attracted significant attention. In 1997, $53 million were spent on film production in Alberta. In 1998, this figure was $99 million. As of June 1999, film and television production accounted for $198 million. Industry representatives point out that, of this figure, $105 million remained in Alberta, of which $97 million remained in the Calgary area. This level of activity supports a resident base of industry experience, including crews, post-production facilities, equipment suppliers, and support services, which in turn attract increasing attention from production executives and studios.

In Calgary, a large segment of the film industry has chosen to locate on the former CFB Calgary lands, portions of which are now known as "CFB Studios". Film industry organizations, such as the Alberta Film Commission and the Directors Guild (Alberta District Council), are now headquartered here, in addition to many film-related businesses. This concentration of film industry players, with its "one-

stop" services, is an additional attraction for productions.

8.5.2 Economic Benefits of the Film Industry

The film industry is estimated to have an economic multiplier of 2.8 to 3. That is, for every dollar spent directly on film production, $2.80 to $3.00 are added to the local economy. Some of the components of and services required by the film industry include hotels, gasoline, car rental, restaurants, catering, lumber and building materials, construction, extras, equipment rentals, office space rentals, airlines, sound studios, telephones, couriers, customs brokers, cleaners, printers, stores for sets and prop purchases, and so on.

Some of these components can be significant. Cast members, crew, hair and makeup people, stunt performers, producers, directors, editors and so on all require accommodation while in Calgary. *Shanghai Noon*, filmed in early 1999, was expected to use 12,000 hotel room nights over the period of the film.

Usually most or all of the construction crews are local, and building materials are purchased locally. For example, *Shanghai Noon* spent $1.3 million US on construction labour alone.

Extras are often hired locally. A film could provide about 2,500 person days of employment for extras alone.

Production of television series not only contributes economic benefits throughout their longer production schedules, they also contribute to the community in other ways. The production of *Honey, I Shrunk the Kids* encouraged high school, Southern Alberta Institute of Technology and Mount Royal College students to learn about the film industry. These institutions in return help prepare students for future employment in the industry. The production also contributed to several local charities.

The film industry is generally regarded as desirable. It is seen to be non-polluting, renewable, a good employer of young people, non-invasive, a consumer of local services, and likely to leave the site in a condition as good as or better than it was originally.

In addition to production occurring in Alberta, local companies that develop to provide services to the film industry can also become exporters of their skills and products. Computer graphics companies are an example of this.

8.5.3 Future Prospects for the Film Industry

Film industry representatives believe that Alberta has many economic and locational advantages that help to encourage and sustain increased production. The economic benefits include the favourable position of the Canadian dollar, Alberta's tax advantages, and reasonable permit fees. There is also a proven record of experience in film production, with highly skilled and professional crews. Alberta offers a diversity of scenery, a high number of daylight hours during the summer, efficient transportation systems, and direct flights from the United States.

These factors are expected to support a continued and increasing film industry in the Calgary area.

Industry representatives are looking to expand the facilities and space they currently occupy on the former Currie Barracks site. They feel that, if restricted to using the hangar buildings only, without office space, the industry would lose its recent momentum. Future expansion to include sufficient production office space, parking, and sound stages may be necessary to support the industry's future.

9.0 Affordable Housing

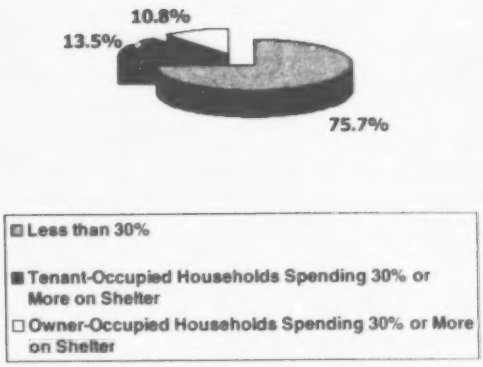
The Plan Preparation Process

9.1 The Affordable Housing Situation

Calgary's economic growth encourages people to move to the city from other parts of Canada. The resulting demand for housing creates significant pressures on the housing market. Affordable housing, and in particular affordable rental housing, is in short supply.

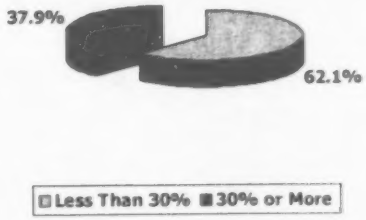
Information from the 1996 Federal Census shows that 24% of all households in Calgary spent 30% or more of their household income on shelter. Thirteen percent of all households in Calgary are occupied by renters who pay 30% or more of their household income on rent, and 11% of all households in Calgary are occupied by owners in this situation. A closer look at these figures shows that renters are more than twice as likely as owners to pay 30% or more of their household income on rent: 38% of tenant-occupied households are in this position, compared to only 17% of owner-occupied households.

Figure 26
Households by % of Income Spent on Shelter and by Tenure



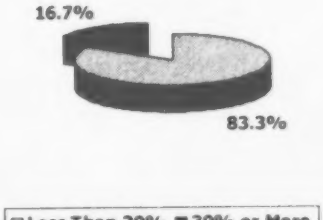
Source: Statistics Canada 1996 Federal Census

Figure 27
Tenant-Occupied Households by % of Income Spent on Shelter



Source: Statistics Canada 1996 Federal Census

Figure 28
Owner-Occupied Households by % of Income Spent on Shelter



Source: Statistics Canada 1996 Federal Census

A recent analysis of housing needs in Calgary identified key target groups, including homeless persons, persons with special needs, and low income families. The same analysis estimated that there is an immediate need for 3,100 housing units.

9.2 City of Calgary's Responses To Affordable Housing

Recent actions taken by the City, often in partnership with local associations and private businesses, include:

- converting a City-owned day care facility into housing;
- facilitating the development of a former barracks building on the Currie Barracks site to provide transitional housing;
- adding units to the York Hotel, providing single room occupancy units;
- providing a City-owned warehouse to serve as a temporary emergency shelter;
- converting an unused electrical substation to provide temporary shelter space;
- purchasing land for the expansion of the Calgary Drop-In Centre;
- helping to secure land for development of a new Salvation Army facility, and adding transitional units;
- pursuing the purchase and refurbishing of a single room occupancy apartment building;
- pursuing partnerships to build new affordable housing on City-owned land;
- participating in a Canada Mortgage and Housing Corporation (CMHC) project to create a centralized computerized system for shelter services;
- contributing to a CMHC project documenting best practices; and
- initiating regular meetings of local staff from CMHC, Alberta Municipal Affairs, Alberta Family and Social Services, and key departments of the City of Calgary, to share information regarding homelessness and affordable housing.

Over the past two years, City Council has adopted several resolutions addressing affordable housing issues. These include:

- directing City Administration to review models and mechanisms used elsewhere, determine their applicability to Calgary, and identify any changes to bylaws, processes and legislation that would be required to implement any of these mechanisms locally;
- supporting the City's participation in the creation of partnerships to encourage the development of new affordable housing;
- approving the allocation of $1.4 million from the new Emerging Social Issues Reserve for housing initiatives;
- directing Administration to develop a response to reduce homelessness in Calgary;
- merging Calhome Properties Ltd., Calgary Housing Authority and the Metropolitan Calgary Foundation to promote long-term, comprehensive planning for social housing;
- directing that savings from this merging of the three agencies be invested in social housing initiatives; and
- including in its Corporate Business Plan specific goals relating to addressing the needs of Calgary's poor, and identifying the need to address the supply of accessible, affordable, adequate housing.

The City has also participated in the Alberta Urban Municipalities Association's efforts to work with Alberta Municipal Affairs to address the Provincial government's role in the affordable housing issue.

9.3 Existing Affordable Housing in the Planning and Surrounding Areas

The Provincial Government and the City of Calgary have, in the past, supplied housing to meet the needs of low-income individuals and families. Within the study area, the Province, the City of Calgary, and other agencies operate a total of 366 low income housing units, which include low rent market housing, non-market housing and special needs housing. Of this total, 46% are for senior citizens, 32% are for families and 22% are transitional housing units in a former barracks building on the CFB lands.

In the surrounding area, including Rutland Park, Glamorgan, Glenbrook, Glendale, Killarney/ Glengarry, Richmond/Knob Hill, Bankview, South Calgary, Altadore, and North Glenmore Park, the Province, City and other agencies operate over 1,300 low income housing units. Of these, 34% are for seniors, 54% are for families, and the remaining units are for emergency shelters, people with mental or physical disabilities, youth, people dealing with addictions, and other special needs.

Over the past few years, some subsidized housing units have been lost in the area near CFB West. Two subsidized housing developments, accounting for a total of 320 units, were converted to condominium ownership and sold at market rates when the contract for managing them as subsidized units ended.

9.4 Affordable Housing Sub-Group of the Citizens' Advisory Roundtable

A representative group of the Citizens' Advisory Roundtable (CAR), Plan Preparation Team and other City staff met in July and August of 1999 to address affordable housing issues. A discussion paper, entitled "CFB West Master Plan - Affordable Housing" was prepared based on the discussions and conclusions of these meetings. (See Appendix 2.) Policies from the discussion paper are reflected in the CFB West Master Plan.

10.0 Definitions

Where possible the terms used in this document match definitions used in the City of Calgary Land Use Bylaw 2P80, other Bylaws and policy documents.

Accessibility - the ability of people to move around an area and to reach places and facilities.

Accessory Building - a building that does not accommodate the principal use of a site and that is not attached above grade to a principal building.

Accessory Use - a building that is subordinate or incidental to the principal use of the site.

Additional Dwelling Unit - a secondary residential unit on a parcel, such as a suite in the basement or over the garage.

Affordable Housing- housing that costs no more than 30% of the gross income of those households considered to have low to moderate incomes, as defined by the lower two income quartiles in the city of Calgary.

Ancillary Use - a land use that is directly related to the primary use of the site.

Apartment Building - a single building comprising three or more dwelling units with shared entrance facilities, where none of the dwelling units is rented or available for rent or occupation for periods of less than 30 days.

Architectural Controls - regulations that control the architectural design of buildings to ensure they are aesthetically acceptable to a community. They are often used by developers to regulate such building elements as facades, rooflines, door and window locations, massing, landscaping, exterior finish, etc.

Amenity Space - an area comprising on-site, common or private, indoor or outdoor space designed for active or passive recreational use.

Approving Authority - the Calgary Planning Commission or the Development Officer or Subdivision Officer, as the context provides.

Bicycle Routes - informal on-street connections to local attractions within the community (e.g., to the community centre, neighbourhood nodes, joint use sites, neighbourhood parks, etc.) and to designated cycle routes.

Big Box Retail - large warehouse-style stores, often specializing in a specific retail category (e.g., toys, office supplies), many with upwards of 9,000 square metres of floor space and large parking lots.

Bikeways - signed, on-street facilities designed to accommodate bicycles and autos. Bikeways provide system continuity and link areas that cannot be adequately served by pathways.

Building Permit - a building permit issued pursuant to the Building Permit Bylaw authorizing construction.

Business Revitalization Zone (BRZ) - a group of business people who administer funds, collected through a special business tax, to improve the area and jointly promote their businesses.

Calgary Planning Commission (CPC) - a body authorized by the Municipal Government Act to

make development permit and subdivision decisions and recommendations on other planning matters to Council.

Community Association Building (Hall) - a facility operated by a community on a non-profit basis for a variety of physical, social and educational activities and that may include an amusement arcade.

Community Centre - the primary public activity centre within a community. Community centres provide a mix of public and commercial activities, including transit, provision for goods and services, community facilities, schools and open space to serve the needs of the community.

Community Plan - a non-statutory plan for a new residential community that provides a detailed framework for outline and land use plans.

Core Needs Households - households that are unable to obtain adequate and affordable housing in the private market at 30% or less of their income. Core need income thresholds are determined every year by the Federal and Provincial Governments. The majority are renters, and the most significant groups are senior citizens, non-senior single-person households, and lone parent families.

Density - for residential buildings, the number of dwelling units on a site expressed in dwelling units per acre (upa) or units per hectare (uph), or, for non-residential buildings, the floor area of a building in relation to the site area (see floor area ratio).

Development Permit - a document authorizing a development, issued by a Development Officer pursuant to the Land Use Bylaw, or any previous Bylaw or other legislation authorizing development within the city, and includes the plans and conditions of approval.

Direct Control (DC) - the purpose of this district is to provide for developments that, due to their unique characteristics, innovative ideas, or because of unusual site constrains, require specific regulations unavailable in other land use districts. This district is not intended to be used in substitution of any other land use district in the Land Use Bylaw that could be used to achieve the same result.

Direct Linkages - short and relatively straight routes between identified points, using the street system, walkways, pathways through parks, etc.

Discretionary Use - may be refused if the use is inappropriate in the proposed location or if the approving authority believes it would adversely impact the area. The approving authority must evaluate the application on its merits, having regard to Council approved plans and policies, the rules of the Land Use Bylaw and the local context.

Dry Pond - a stormwater storage facility that is designed to detain water on a temporary basis (short-term) during a major storm.

Duplex - a single building containing two dwelling units, one above the other, each having a separate entrance.

Dwelling Unit - two or more rooms used or designed to be used as a residence by one or more persons and containing kitchen, sleeping and sanitary facilities.

Employment Centre - an area accommodating a substantial number of jobs and which also provides goods and services needed by workers and nearby residents.

Established Communities - those communities defined in Section 20(24) of the City of Calgary Land Use Bylaw as being subject to the Special Rules for Infill Development.

Floor Area Ration (FAR) - the quotient of the gross floor area of a building divided by the gross site area.

Focal Point - a structure, feature or area of interest or activity.

Gross Acre - the land area used to calculate gross residential density. The elements included and excluded are as follows:

Included in Density Calculations:

- All residential land uses
- Neighbourhood shopping centres
- Municipal Reserve
- Municipal School Reserve
- Church sites
- Daycare centres
- Community Halls
- All roads except Expressways, Freeways, and Major roads
- All lanes
- Commercial centres less than 2.8 ha (7 ac)
- Elementary schools, junior high schools
- Small-site Fire and Police Stations
- Private golf courses

Excluded from Density Calculations:

- Environmental Reserve
- Expressways, Freeways, and Major streets
- Regional and sector shopping centres
- Major institutional centre
- Land reserved by the Province
- High School sites (purchased by school boards)
- Vacant multi-family sites and single family acreages
- Commercial centres greater than 2.8 ha (7 ac)
- Industrial uses
- Regional land uses such as regional parks, etc.
- Community lakes

Home Occupation - the accessory use of a dwelling unit or private garage, by the resident, for small scale business purposes. The Land Use Bylaw contains specific guidelines for home occupations.

Household Size - the average number of persons living in a single occupied dwelling unit, determined from the Civic Census.

Household Type - categories of the make-up of households determined from the Federal Census. The categories are: non-families; single parent; couples (married or common-law) with children; and couples (married or common-law) with no children.

Housing Type - categories of dwelling units (regardless of ownership). The categories are: single family (single-detached dwellings); two-family (duplex, semi-detached and additional dwelling units); and multi-family (triplex, fourplex, townhouse, and apartment buildings).

Incubator - an organization of services designed to assist start-up businesses, including management assistance, access to financing, business or technical support services and shared office services, equipment and space.

Infill or Infill Development - the development or redevelopment occurring on a vacant site following completion of the initial development of the area.

Infrastructure - the urban facilities that are required to service land for its subsequent development and use, usually referring to roads, bridges and utilities.

Inner City - that area indicated on Map 2, Boundaries of the Inner City, contained in Section 18 of the Land Use Bylaw.

Institutional Uses - means a public or private use that serves the educational, social, cultural or religious needs of the residents in a community and may include a church, a post office or postal kiosk, a library, a public or private school, and a child-care facility.

Land Use Bylaw - the City of Calgary Land Use Bylaw 2P80.

Land Use Designation (zoning) - the legal control on the use and intensity of development on a parcel of land (not on the design of a project).

Landscaped Area - that portion of a site that is required to be landscaped.

Linear Park - means a park comprising reserve land that may contain pathways (regional or local), lighting, park furniture, tot-lot equipment, etc., and creates continuity for the open space system. A linear park has a minimum width of 10 metres.

Live/Work - individual units that combine work space and living space. The work space may occupy more of the unit's floor area than in a typical home occupation, but impacts on adjacent residential uses are intended to be kept to a minimum.

Main Street - a neighbourhood or community business district. Main streets are areas of higher density land uses, with concentrations of shopping (such as a small grocery store, book store or pharmacy), services (such as a bank, real estate office, or upholstery shop) and entertainment or restaurants. Apartments are often located around the main street district and may exist on second or third stories above retail or offices. Main streets should have high quality transit service and a good pedestrian environment. (from Main Street Handbook: A User's Guide to Main Streets)

Mass - the arrangement of the bulk of a building on a site and its visual impact in relation to adjacent buildings.

Master Plan - a broad planning document that establishes a vision and a policy framework to guide both the short and long-term physical development of an area. It helps to provide information to landowners.

Mixed Model (Income) Housing - housing developments that include both market and non-market units.

Mixed Use Development - the development of land, a building or a structure with three or more different uses such as, but not limited to, residential, office, manufacturing, retail, public, educational, or entertainment, in a compact form. "Horizontal" mixed uses are side by side, usually in different buildings. "Vertical" mixed uses are on different floors of the same building.

Mobility - ease of travel.

Municipal Land or School Reserve - the Municipal Government Act provides for the dedication of reserve land for schools and parks (including decorative parks, tot lots, neighbourhood parks and linear parks). The amount of land that is required through developer dedication is up to 10% of the parcel to be subdivided less environment reserve and land purchased for expressway and freeway rights-of-way. Municipal and/or school reserves may only be used by a Council or a school authority or by them jointly for:

- a public park;
- public recreation area (e.g., community association use);
- school purposes; and
- to separate areas of land that are used for different purposes.

Natural Area - open space containing unusual or representative biological, physical or historical components. It either retains or has re-established a natural character, although it need not be completely undisturbed.

Node - a place where activity and routes are concentrated.

Non-Conforming Building - a building:

a. that is lawfully constructed or lawfully under construction at the date the Land Use bylaw of any amendment thereof affecting the building or land on which the building is situated becomes effective, and

b. that on the date the Land Use Bylaw or any amendment thereof becomes effective does not, or in the case of a building under construction will not, comply with the Land Use Bylaw.

Non-Market Housing - housing which receives some government funding in order to support individuals or families who cannot afford to pay market rent. Subsidization mechanisms may include rent supplement programs, government owned or financed housing projects and units or projects developed by non-profit, co-operatives, and other benevolent agencies.

Non-Statutory Planning Study - a study or plan that contains policies approved by Council but not adopted by bylaw.

Occupancy Rate - see Household Size

Open Space - all land and water areas, either publicly owned or offering public access, that are not covered by structures.

Outline Plan - means a non-statutory plan, usually for a phase of a new community, that establishes the detailed design of the subdivision, including street and lane patterns, utility layout and dedication of reserve land.

Pathways - off-street facilities that are either shared by pedestrians and cyclists or have twinned portions that segregate the two user groups. These pathways lie in Calgary's open spaces and minimize interface with automobiles while providing a facility suitable for recreational and utilitarian use.
Local pathways link neighbourhood parks and local streets to regional pathways.
Regional pathways link together main parks, recreational facilities and schools within a

community as well as linking communities to each other and to river pathways.

Pedestrian-oriented or Pedestrian-friendly - an environment designed to make movement (on foot or by wheelchair) fast, attractive and comfortable for various ages and abilities (i.e., visual and hearing impaired, mobility impaired, developmentally challenged, situationally impaired). Considerations include separation of pedestrian and auto circulation, street furniture, clear directional and informational signs, safety, visibility, shade, lighting, surface materials, trees, sidewalk width, prevailing wind direction, intersection treatment, curb cuts, ramps, landscaping, etc.

Permitted Uses - uses that are well-suited to a particular land use district. Applications relating to permitted uses that fully comply with the Land Use Bylaw must be approved.

Principal Building - a building that accommodates the principal use of a site, and may accommodate one or more accessory uses.

Recreational Use - means a public, private or recreational facility or amenity, a joint use site or park or playground that serves the surrounding neighbourhood or community.

Regional Open Space System - the citywide park and recreation network, which includes the various types of open space, parks, golf courses, etc., as well as the regional pathway system.

Regional Pathway System - the identified citywide network of both on and off-street routes for cyclist and pedestrian use for recreational and travel purposes.

Regional Shopping Facilities - a group of commercial uses that provides a wide variety of goods and services on a citywide scale, and may include offices and other non-commercial uses.

Reserve Land - lands acquired at the time of subdivision for park and/or school purposes. Such lands are dedicated in accordance with the Municipal Government Act 1995, and dedicated as one of the following:

Municipal Reserve (MR) - reserve land used for park purposes;
Municipal School Reserve (MSR) - reserve land used for joint school and park purposes;
School Reserve (SR) - reserve land used for school purposes.

Right-of-Way - a strip of land occupied or intended to be occupied by a street, crosswalk, railroad, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer main, shade trees, or other special use.

Semi-detached Dwelling - a single building designed and built to contain two side-by-side dwelling units, separated from each other by a party-wall extending from foundation to roof.

Single-detached Dwelling - a single residential building containing one dwelling unit only but does not include a mobile home.

Site - an area of land on which a building or use exists for which an application for a development permit is made.

Social Housing - any housing which receives government funding in order to support individuals or families who cannot afford to pay market rent.

Social housing can come in many forms, including rent supplement programs, government owned or financed housing projects, and non-profit (third sector) units or projects developed by cooperatives and charitable agencies.

Special Care Facility - means a building or a portion thereof that provides for the care or rehabilitation of one or more individuals in the case of a half-way house or five or more individuals in all other cases, with or without the provision of overnight accommodation, and includes nursing homes, geriatric centres and group homes but does not include hostels, child care facilities and senior citizens' housing.

Special Needs Housing - housing that includes support services and/or physical design not normally provided in housing to specifically accommodate persons with special needs, including the elderly or the physically or mentally disabled.

Stacked Townhouse - a single building comprising five or more dwelling units and constructed such that one or more dwelling units are located totally or partially above another, and each dwelling unit has a separate, direct entrance from grade or a landscaped area.

Street - a public thoroughfare of the City, including sidewalks and borders, which affords a means of access to land abutting it and includes a lane and a bridge.

Streetscape - all the elements that make up the physical environment of a street and define its character. This includes paving, trees, lighting, building type, style, interface and setback, pedestrian amenities, street furniture, etc.

Storey - the space between the top of any floor and the top of the next floor above it, and if there is no floor above it, the portion between the top of the floor and the ceiling above it.

Sustainable Suburb - a community that has been organized in such a way that the fiscal, social and environmental activities that take place within it are capable of being sustained far into the future.

Townhouse - a single building comprising three or more dwelling units separated one from another by party-walls extending from foundation to roof, with each dwelling unit having a separate, direct entrance form grade and includes all row, linked, patio, garden court or other housing that meets such criteria.

Traffic Calming - achieving the slowing of vehicular speeds or reduction in traffic volume by incorporating measures including on-street parking, changes in street surface, reduced street width, signals, traffic circles and roundabouts.

Target Group - An identifiable group of persons demonstrating a set of common characteristics as set by The City in assessing and addressing their specific social and housing needs.

Transit-oriented, transit-friendly, or transit-supportive - the elements of urban form and design that make transit more accessible and efficient. These range from land use elements (e.g., locating higher density housing and commercial uses along transit routes) to design (e.g., street layout that allows efficient bus routing). It also encompasses pedestrian-friendly features as most transit riders begin and end their rides as pedestrians.

Travel Mode - travel methods such as car use, public transit, cycling or walking.

Utilities - facilities for gas, electricity, telephone, cable television, water, storm or sanitary sewer.

Appendix 1 Permit Applications for Heritage Sites

The Heritage Advisory Board was established in 1997 to advise City Council on heritage issues, that may affect the designated and potential heritage buildings listed on The City of Calgary's "Inventory of Potential Heritage Sites". These sites have been evaluated according to a Council-approved process and categorized as "A", "B", or "C" potential heritage sites. A number of the buildings within the plan area are listed on the City's " Inventory" and the majority of them have been designated as Provincial Historic Resources (refer to chapter 7 - Heritage Conservation and Military Legacy).

The Heritage Advisory Board makes recommendations to The City on heritage issues as they relate to land use amendments, building, development, demolition and subdivision permit applications affecting sites listed on the "Inventory". The Board is not a regulatory agency and its recommendations to Council, and the City's Development and Building Approvals, and Planning Policy Business Units are advisory.

The following summarizes the permit application processes for sites listed on the City of Calgary's "Inventory of Potential Heritage Sites", and for Designated Provincial or Registered Historic Resources. The Heritage Planner of the Planning Policy Business Unit will assist applicants on heritage matters and their related processes.

A. Sites listed on the "Inventory"

Using Council-approved evaluation procedures, the potential heritage sites on the "inventory" are classified as follows:

- **"Category A"**

  Sites or buildings in this category are notable, unique or rare. No alternate replacement building on the site is recommended and additions or alterations should be undertaken in accordance with standards approved from time to time by the Heritage Advisory Board and outlined in the ***"Province of Alberta's Guidelines for the Rehabilitation of Designated Historic Resources"***. All buildings and sites in this category are worthy of consideration for designation under the Historical Resources Act. Recommendations on designation under the Act are made by the Heritage Advisory Board in accordance with Council-approved policy.

- **"Category B"**

  "Category B" sites or buildings are very significant in certain respects. Additions or alterations should be undertaken in accordance with standards approved from time to time by the Heritage Advisory Board and outlined in the ***"Province of Alberta's Guidelines for the Rehabilitation of Designated Historic Resources."*** Buildings and sites in this category are worthy of consideration for designation under the Historical Resources Act. Recommendations for designation under

the Act are made by the Heritage Advisory Board in accordance with Council-approved policy. Strategies with respect to sites or buildings in this category are decided in response to the significant aspects of the site. The City actively encourages preservation of these potential heritage resources.

- **"Category C"**

  "Category C" sites or buildings are significant potential heritage resources and their preservation is encouraged by The City of Calgary. Strategies with respect to sites or buildings in this category are decided in response to the significant aspects of the site

B. Existing permit review for sites listed on the"Inventory"

- **Development Permits**

  All development permits for sites on the "Inventory" are reviewed by the Heritage Planner and referred to the Heritage Advisory Board, which makes recommendations to the Development and Building Approvals, and Planning Policy Business Units on such permits. The Board's recommendations are advisory.

- **Building Permits**

  All building permits for sites listed on the "Inventory" are reviewed by the Heritage Planner for heritage implications. In cases where there is a substantive heritage concern that would irreversibly alter the heritage character of a building or site, the permit application is referred to the Heritage Advisory Board for comments. The Board's recommendation to the Development and Building Approvals, and Planning Policy Business Units is advisory.

- **Demolition Permits**

  Application for demolition permits listed on the "Inventory" are referred to the Heritage Advisory Board. In common practice, the Heritage Advisory Board enters into discussions with the owner of potential heritage sites proposed for demolition in order to determine if an alternate course of action exists.

- **Historic Resource Impact Assessment on Sites Proposed for Demolition**

  The Heritage Advisory Board can refer sites on the "Inventory" that are proposed for demolition to the Province for its consideration regarding designation under the Historical Resources Act. In such cases, a demolition permit affecting a potential heritage site may be held for an additional 30 days over and above the required approval time in order to allow the Province to render a decision.

- **Elevation of Designation from Registered to Provincial Status**

  In cases of Registered Historic Resources listed on the "Inventory" which are threatened by demolition or alteration, the Heritage Advisory Board may request the Province to consider elevating the designation of the site(s) to Provincial status. In such cases, a permit affecting a

Registered Historic Resource may be held for an additional 30 days over and above the required approval time to allow the Province to render a decision.

1.0 Permit Applications for Designated Historic Resources

A number of sites within the plan area have been designated under the ***Historical Resources Act*** and, accordingly, have additional conditions that relate to permit applications for building, development, subdivision or land use amendments. As of June 1999, the Province has designated 12 sites as Provincial Historic Resources. It is currently projected that a Notice will be issued in 2000 for the designation of additional buildings and associated lands as either as Provincial or Registered Historic Resources.

A. Provincial Historic Resources

Section 16 of the ***Historical Resources Act*** states:

"(9) Notwithstanding any other Act, no person shall

(a) destroy, disturb, alter, restore or repair any historic resource of land that has been designated under this section, or

(b) remove a historic object from a historic resource that has been designated under this section

(10) The Minister, in his absolute discretion, may refuse to grant an approval under subsection (9) or may make the approval subject to any conditions appropriate"

Owners of Provincial Historic Resources are required to notify Alberta Community Development, Historic Site Service of any work proposed to be undertaken on the designated property. In practice, this is best achieved through consultation with the staff of Historic Sites Services, Calgary. Such a consultation ensures that potentially problematic issues are identified early in the process of defining the work scope to lessen the possibility of costly delays.

In reviewing proposals for Provincial Historic Resources, the Province uses its ***Guidelines For The Rehabilitation of Designated Historic Resources,*** which is available from Historic Sites Service, Alberta Community Development.

No work can legally proceed on a Provincial Historic Resource until an Approval Document outlining an approved scope of work is issued by Alberta Community Development. Permit approvals for permitted and discretionary uses under the ***Calgary Land Use Bylaw*** are subject to a Prior to Release condition requiring an Approval Document for the subject site from Alberta Community Development. It is the applicants' responsibility to provide the City of Calgary with a copy of the Approval Document. No permit will be released affecting a Provincial Historic Resource without an Approval Document from Alberta Community Development.

B. Registered Historic Resources

Section 15 of the ***Historical Resources Act*** states:

"(5) Notwithstanding any other Act, no person shall

(a) destroy, disturb, alter, restore or repair any historic resource or land that has been designated under this section, or

(b) remove an historic object from a historic resource that has been designated under this section,

until the expiration of 90 days from the date that notice of this proposed action is served on the Minister, unless the Minister sooner consents to the proposed action."

Owners of Registered Historic Resources are required by the Act to notify Alberta Community Development, Historic Sites Service of any work proposed to be undertaken on a designated property.

The Province utilizes the ***Guidelines For The Rehabilitation of Designated Historic Resources*** in reviewing a proposed scope of work for a Registered Historic Resource. This document is available from the Alberta Community Development.

No work can legally proceed on a Registered Historic Resource until 90 days have elapsed from the date of the owner's written notification to Alberta Community Development of the proposed action. It is the owner's responsibility to provide The City of Calgary a copy of the written notification to the Minister with respect to the proposed action affecting the Registered Historic Resource.

No permit affecting a Registered Historic Resource will be released until 90 days have elapsed from the date of the applicant's written notice to the Minister outlining the proposed scope of work.

Should the Province determine that a proposed action may negatively impact a Registered Historic Resource, the Minister has the ability to issue a Notice of Intention to designate the site as a Provincial Historic Resource. In such cases, The City of Calgary will not release the permit until an Approval Document for the proposed scope of work has been issued by Alberta Community Development.

Appendix 2 Affordable Housing

1. Context

Housing plays a fundamental role in the well-being of individuals, families and communities. Quality, secure and affordable housing provides a foundation for people to tackle their health, economic and social needs. The provision of an adequate supply of suitable and affordable housing stock throughout the city is an important factor in Calgary's attractiveness as a location for business and industry, and as a place to live.

Mirroring Alberta's healthy economic growth, Calgary has consistently experienced a strong population growth with substantial levels of net in-migration. In migration of residents motivated by job opportunities has created significant pressures on the housing markets. The City is experiencing an increasing need for a range of affordable housing options. In particular, the affordable rental accommodations are in critical short supply. In addition, the City is facing increasing numbers of homeless individuals, the working poor, and people with special needs that require affordable rental and social housing.

Very few of the housing starts are rental despite a vacancy rate of less than 1%.[1] At the same time, new housing construction is targeted primarily to home ownership including condominium housing, which is generally beyond the means of low income individuals.[2] Recent information from the 1996 Census data shows that 38% tenant-occupied households and 17% owner-occupied households in Calgary spent 30 % or more of their household income on shelter, a benchmark commonly used to define housing affordability.[3] The waiting lists for social and special needs housing continue to grow with the cancellation of Federal and Provincial government's social/affordable housing programs.[4]

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[1]The vacancy rate for various types of dwelling types fluctuates seasonally. CMHC provides information on housing trends and vacancy rates for major metropolitan areas in Canada.

[2] Measures of low income known as low income cut-offs (LICOs) were first introduced in Canada in 1968 based on 1961 Census income data and 1959 family expenditure patterns. At that time, expenditure patterns indicated that Canadian families spent about 50% of their income on food, shelter, and clothing. It was arbitrarily estimated that families spending 70% or more of their income on these basic necessities would be in straitened circumstances. With this assumption, low income cut-off points were set for five different sizes of families. Subsequently, revised low income cut-offs were established based on national family expenditure data from 1969,1978,1986 and 1992. These data indicated that Canadian families spent, 34.7% in 1992. By adding the original difference of 20% points to the basic levels of expenditure on necessities, new low income cut-offs were set at income levels differentiated by family size and degree of urbanization. Since 1992, these cut-offs have been updated yearly by changes in the Consumer Price Index. For example, in 1997, a family of 2 having an income of below $21,760 is considered to be living in "straitened circumstances". See Background for additional information.

[3] Affordable housing refers to housing that costs no more than 30% of the gross income of those households considered to have low to moderate incomes, as defined by the lower two income quartiles in The City of Calgary.

[4]Social housing refers to housing,which receives government funding/subsidies in order to support individuals or families who can not afford to pay market rent. Social housing may take a variety of built forms. Subsidization mechanisms may include rent supplement programs, government owned or financed housing projects. Social housing may include units or projects developed by non-profit, cooperatives and other charitable agencies.
Non-market often refers to a form of social housing in which housing is subsidized through government programs for families and individuals who cannot afford to rent market housing or for whom the market does not always provide this housing type, such as the disabled. This term is often used in reference to mixed model housing projects.
Special needs housing refers to housing that includes support services and/or physical design not normally provided in housing to specifically accommodate persons with special needs including the elderly or the physically or mentally disabled.

It is anticipated that market rents will rise to levels set by the cost of new projects. The Calgary Housing Committee's "Three Year Plan for Affordable Housing in Calgary 1998-2000" estimated a 50% increase in core need households in the city.[5] There is a clearly established immediate and long-term need to increase the supply of affordable, low-income rental and ownership housing options for Calgarians.[6]

2. Directions & Challenges

The City values and advocates for the availability, accessibility and affordability of quality, safe and secure housing for all Calgarians.

The direction of the **Calgary Plan** generally aims at ensuring that the development industry can continue to provide housing which meets the needs of most Calgarians. Housing policies that support The **Plan** encourages the private sector to explore innovative and creative housing solutions with respect to affordable housing.

The **Sustainable Suburbs Study, 1995** recognizes the importance of providing a range of housing choices in all communities so that people of different household types, income levels and age groups can find accommodation that suit their needs.

The City can play a role in supporting the private sector, the most significant housing provider in Calgary, by influencing the costs associated with housing. Creative housing solutions must be encouraged through mechanisms and incentives such as relaxing and/or removing regulatory barriers.

The City has been taking action on a number of fronts to respond to the immediate needs of homeless people and others in need of affordable housing.[7] In 1998, Council approved the "Corporate Strategies to Support the Provision of Low Income Rental housing" report, which mandated The City to undertake private-public partnerships in stimulating new affordable housing. Funding was also allocated for several housing initiatives. The City's Corporate Steering Committee on Affordable Housing has focused on the performance measures related to "housing supply". The City's goal is to increase the supply of transitional and affordable permanent housing units, so as to lessen the demand on emergency shelters. In July, City Council approved:

- the principles for partnerships/joint ventures to stimulate future development of affordable and special needs housing;
- the establishment of a Housing Reserve to support affordable and special needs rental housing initiatives;
- action to develop initiatives to address emergency shelter, special needs, transitional and affordable rental housing needs with Provincial and Federal representatives;
- examining opportunities that might be available, through the land use planning and regulatory

[5]Those households having difficulties in obtaining adequate and affordable housing in the market place at 30% or less of their gross income on basic shelter are described as Core need. Core need income thresholds are determined every year by the Federal and Provincial Governments. The primary characteristic of those in core need is that the majority is renters. The most significant groups are senior citizens, single households and single-parent families.

[6]The Background Information provides a summary of the recent housing data in Calgary.

[7]A summary of the recent actions taken by The City is included in the Background Information of the Master Plan.

system, to develop a wider range of private and public sector affordable housing;

- Administration to provide a report on principles for partnership/joint ventures, addressing community consultation and other social supports necessary to create and maintain affordable and special needs housing in communities.

A number of players need to be involved to create affordable housing. The key players include the municipal government, senior levels of government, private developers, builders, non-profit agencies and financial institutions. Each player has an important role to play. In particular, the private sector has land and equity to bring to the production of housing, and could provide or facilitate the creation of affordable housing as part of larger redevelopment schemes. The senior levels of government can assist with funding programs and establish policies to influence housing supply in the market place. The municipal government establishes housing policies that support and enhance a healthy and competitive market to enable the development industry to continue in meeting the majority of Calgarians' housing needs. In addition, in its land use regulatory controls, the City can facilitate the development approval process. The non-profit agencies provide valuable resources, particularly in their organizational experience and skills in the housing area, and in their various supports to people in need.

3. Affordable Housing Policies and Implementation Strategies

One of the key goals of the CFB West Master Plan is to develop an integrated mixed-use community which offers a choice of housing types, tenure, affordability levels and lifestyles. There are opportunities to encourage a range of affordable/low cost housing in CFB West. In particular, there is a need to provide a housing strategy and initiatives to address seniors, special needs, social and core needs housing. In collaboration with the private sector, government and non-profit agencies, the new community of CFB West will be the definitive model for affordable housing in the 21st century.

The following policies, initiatives and implementation strategies attempt to influence the choice and mix of housing within the plan area. The objectives are to increase the diversity of the housing stock; to foster the provision of market and non-market affordable housing; and to foster public/private partnerships to ensure the units can be occupied also by those who cannot afford market rents.

General

3.1 The housing needs of all in the community should be recognized, including those in need of market and non-market affordable or special needs housing.

3.2 In order to create a balanced community, the creation of large areas of housing for a particular social or income group should be avoided. Different types of housing and tenures should be integrated to enrich the community.

3.3 To support the affordable housing strategy, secondary suites, including the option for a suite over a garage, will be permitted uses in all residential districts. A "Direct Control" (DC) land use designation may be used to implement this strategy.

3.4 Certainty of use for residential developments should be considered in the redesignation stage.

3.5 Home occupation will be encouraged in all residential and mixed use districts to foster live/work within the community. This would improve convenience and affordability for residents that would prefer to do their business at home.

3.6 Builders and developers are encouraged to create innovative, adaptable, and affordable homes that are both attractive and functional, and can respond to changes in life priorities. For example, the Flexhousing concept, which encourages a more versatile and flexible approach to design and construction should be explored.[8] Co-housing, co-operative housing and other forms of housing which could respond to the social, economic and environmental needs of the community are encouraged.[9]

Incentives

The following section represents a range of incentives which should be considered by the Approving Authority in reviewing applications for affordable housing which may include a social, special needs or non-market housing component. These incentives are intended to stimulate the private sector to play a larger role in providing both affordable rental and ownership units.

3.7 In order to facilitate the development of affordable and innovative housing, the yard and parking by-law requirements, may be relaxed at the discretion of the Development Officer in reviewing housing projects that are close to transit, jobs and public amenities.

3.8 Subject to the approval of the Transportation, Roads and Utilities and Environmental Protection departments, and without compromising the safety and health of the community, servicing requirements and road standards may be modified to meet the affordable housing objective.

3.9 On-site density may be increased by a maximum of 10% in exchange for the provision of social, special needs or non-market housing units.

Social/Special Need Housing

3.10 In order to facilitate the provision of affordable and social/special needs housing, the City will seek and support partnership/ joint venture with non-profit organizations, other levels of government, federal or provincial agencies and the private sector to

[8] Consult CMHC for details of Flexhousing concept. A home with a Flexhousing approach can accommodate the changing lifestyle needs of its occupants. The house can be designed and pre-wired to include a home office, a private suite for aging parents or grown children, or features that meet the special needs of a single parent or a person with disability. The rooms can change size and funciton to respond to changes in life priorities of their occupants.

[9] Cohousing is a housing concept that originated in Denmark in the early 1970's to counter the increasing social isolation of modern communities. Ownership method varies from cooperatives to condominium. Key elements may include common facilities; common dining room where community meals are served several nights a week, with cooking responsibility shared by members; members plan and take an active role in the design and development of the project; member managed; and generally pedestrian oriented. Cooperative housing is commonly managed by non-profit organizations, where each member shares in ownership of the whole property, but with a right to occupy a specific unit.

create new affordable and social housing in the plan area. It is noted that successful partnerships between the public, private sector and, particularly the non-profit sector, are currently not feasible without some form of public sector support to reduce the gap between market and economic rent. The City will liaise with relevant federal and provincial departments/agencies to explore funding/ program availability.

3.11 The City will consider contributing civic assets, including land, long-term leases or financial support to leverage or augment the contribution of other participants (public, non-profit, private) in order to stimulate affordable housing in CFB West.

3.12 The City, in conjunction with the Provincial and Federal governments, will examine the feasibility, availability and suitability of residential sites in the plan area for social and/ or special needs housing;

3.13 The Planning & Building Department will explore options to streamline the approval processes for housing projects which include a social, special needs or non-market component. The Corporate Planning & Application Group (CPAG) may implement some type of "fast track" process to expedite development approvals;

3.14 Proposals for social, special needs or non-market housing should meet the following criteria:

- be well designed, human in scale;
- integrate well with adjacent development within the community;
- small -scale which can easily be integrated within the neighbourhood as opposed to large-scale projects;
- be distributed (scattered) in a variety of locations rather than concentrated in one area;
- represent a mixed model project, which contains both non-market and market housing units;
- target the housing for special needs and/ or core needs clients;
- units and projects be suitably designed to meet the long-term needs of the target group (i.e. seniors, disabled, families); and
- Located in proximity to services necessary to fulfil daily basic needs of the target group, e.g. transit, schools, and essential shopping needs.

3.15 Every effort should be made to involve local community and residents in project design, development, and management of non-market housing, where possible, to address the needs of the project clients and overcome potential conflict with local residents.

Legacy

3.16 As part of a legacy for all Calgarians in CFB Calgary, The City will assist and participate in the development of a pilot housing project that demonstrates innovative approaches to achieving a mix of market and non-market housing in the plan area.

3.17 The criteria as set out in Section 3.14 and the process for undertaking this "legacy" project is set out below. Further criteria will

developed and finalized as partners are determined;

- The project will focus on providing housing for special need and core need households that are on the City's and/or other non-profit organizations' social housing waiting lists.
- Rent levels should be maintained and protected at the affordable level in perpetuity;
- The size and relative mix of market and non-market units will determined once partners are established.
- The amount of City's resource support contribution will be assessed in terms of costs and benefits to the City, and finalized its involvement as part of negotiating the partnership agreement. Key resources provided may include land, capital grants (from Reserve Fund), facilitating development approvals and others as listed above.
- City Administration will bring forward a recommended project for Council's approval, including the implementation process and the nature of the partnership arrangement.
- An advisory committee will be established to guide the development of the demonstration project. The committee should comprise representatives from the three levels of government agencies, the ward alderman, representatives from the CFB West Citizens' Advisory Roundtable (CAR), the development industry, support service providers, project participants, potential residents, surrounding communities and other stakeholders.

CFB West Master Plan - Affordable Housing Sub-group

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